



mmFATP1	1	M	R	A	P	G	A	G	T	A	S	V	A	S	L	A	L	L	W	F	L	Q	L	P	W	T											
mmFATP2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	L	P	-												
mmFATP3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
mmFATP4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	D	P												
mmFATP5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
ceFATPa	1	M	A	L	R	W	F	L	G	D	P	T	C	L	V	L	L	G	L	L	G	R	P	W	I	S	S	W	M	P	H	W					
scFATP	1	-	-	-	-	-	-	-	-	-	-	-	M	K	L	E	E	L	V	T	V	M	L	L	T	V	A	V	I	A	Q	N	-	L	P	I	G
mtFATP	1	-	-	-	-	-	-	-	-	-	-	-	M	S	P	I	Q	V	V	F	A	L	S	R	I	F	L	L	L	F	R	L	I	K	L	I	
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	

FIG. 1A

W	S	A	A	A	F	C	V	Y	V	G	Q	G	W	R	F	L	R	I	V	C	K	T	A	R	R	D	L	F	Q	L	S	V	L	I	R			
V	L	Y	T	Q	L	A	G	-	L	L	L	P	L	L	T	C	C	C	P	Y	L	L	Q	D	V	R	Y	F	L	R	L	A	N	M	A			
S	E	S	Q	C	S	L	-	-	-	-	-	-	-	-	-	-	-	A	W	R	L	A	Y	L	A	R	E	Q	P	T	H	T	F	L	I	H	G	A
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
L	S	L	V	G	A	A	L	T	L	F	L	L	P	L	Q	P	P	P	G	L	R	W	L	H	K	D	V	A	F	T	F	K	M	L	F	Y	G	
V	I	L	A	G	V	L	I	L	Y	I	T	V	V	H	G	D	F	I	Y	R	S	Y	L	L	T	N	R	D	L	T	Q	L	A	L	I	E		
I	T	P	I	Q	K	S	L	G	Y	L	T	G	N	Y	F	D	E	L	D	R	K	Y	R	Y	K	E	D	W	Y	I	I	P	Y	F	L	K	S	
S	D	Y	Y	G	G	A	H	T	T	V	R	-	-	-	-	-	-	L	I	D	L	A	T	R	M	P	R	V	L	A	D	T	P	V	I	V	R	G

FIG. 1B



FIG. 1D



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mmFATP1	126	- - - - -	A P G D V V A V F L E	G R P E F V G L W L G L A K A	G V V A A L L N
mmFATP2	101	- - - - -	L R Q G D C V A L F M G N E	P P A V V W I W L G L L K L	A C L L N
mmFATP3	94	- - - - -	L A P Q A T V A L L H P A G	P D F L W I F G L A K A	V V A A L L N
mmFATP4	8	- - - - -	- - - - -	- - - - -	C P M A A L L N
mmFATP5	140	I Q N T R D A A A I L V L P S	K T I S A L S V F L G L A K A	L G V E A A L L N	
ceFATP	125	- - - - -	R S G D V V A L L Y M E N	S V F F V A A W M G L A K A	A W I L N
scFATP	134	- - - - -	V Q A G D Y V A I D C T N	K P L F V F L W L S L W N	I I L N
mtFATP	94	- - - - -	V G P G D V V G I M L R N S	P S T V L A M L A T V K	A G M L N

FIG. 1E

V N L R R E P L A F C L G T S A A K A L I Y G	G E M A A V A E V S E
Y N I R R A K S L L L H C F Q C C G A K V L L A S P D L Q E A V E F V L P	L P L P L P
T A L R R R G P L L L R H C L R S C S T S S K G A R A L I F G S E M A S A I C E P D L H A	
T N L R R G M P L L L V H C I L T S S A S V L I I V D P D L Q E N L E E V D L P	
P H S R R K R E Q L L V H S L K I S N I T Q V F I T S V D L Q E N I M L E E D A S E E	
S N L T K G T P L L V H S L G L L D A K V L I A E S D L V S A V A E E C G A	
Y H Q R G E V L A H S L G L L D A K V L I A E S D L V S A V A E E C G A	

FIG. 1F



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mmFATP1	195	Q	L	G	K	S	L	L	K	F	C	S	G	D	L	-	G	P	E	S	I	L	P	D	T	O	L	L	D	P	N	L	A	E	A	P	T	T	P	L		
mmFATP2	171	T	L	K	-	-	K	D	A	V	S	V	F	Y	V	-	S	R	T	S	N	T	N	G	V	D	T	I	L	D	K	V	D	G	V	S	A	E	P	T		
mmFATP3	164	A	L	R	-	-	A	M	G	L	H	L	W	A	T	-	Q	P	E	T	N	V	A	G	I	S	N	L	L	S	E	A	A	D	Q	V	D	E	P	V		
mmFATP4	56	S	L	E	P	T	L	S	L	F	C	S	G	S	W	-	E	P	S	T	V	P	V	S	T	E	H	L	L	D	P	L	L	E	D	A	P	-	K	H	L	
mmFATP5	213	K	L	L	-	-	A	E	N	I	H	C	F	Y	L	-	G	H	S	S	P	T	R	G	V	E	A	L	L	G	A	S	L	L	D	A	A	P	S	D	P	V
ceFATPa	194	O	K	L	F	D	V	E	G	I	E	V	Y	S	V	-	Q	E	P	K	K	N	S	G	F	K	N	L	L	K	K	L	L	D	A	Q	I	T	T	E	P	
scFATP	204	E	I	K	N	A	L	P	D	V	K	L	N	Y	L	E	Q	D	V	L	T	V	E	D	V	E	L	N	S	Q	S	F	A	T	T	A	P	A	T	N	-	-
mtFATP	164	S	R	G	-	-	-	-	-	-	-	R	V	A	-	-	G	D	V	L	T	V	E	D	V	E	L	N	S	Q	S	F	A	T	T	A	P	A	T	N	-	-

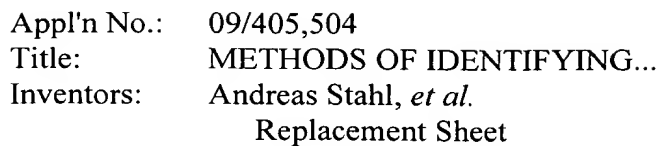
FIG. 1G

A	Q	A	P	G	K	-	-	G	M	D	D	R	L	F	Y	I	Y	T	S	G	T	T	G	L	P	K	A	A	I	V	V	H	S	
P	E	S	W	R	S	E	V	T	F	T	T	P	A	V	Y	I	Y	T	S	G	T	T	G	L	P	K	A	A	T	I	N	H	H	
P	G	Y	L	S	A	-	-	D	T	C	L	Y	I	F	Y	I	F	T	S	G	T	T	G	L	P	K	A	A	R	I	S	H	L	
P	S	H	P	D	K	-	-	G	F	T	D	K	L	F	Y	I	Y	T	S	G	T	T	G	L	P	K	A	A	I	V	V	H	S	
P	A	S	L	R	A	T	-	-	K	S	P	A	I	F	I	F	T	S	G	T	T	G	L	P	K	P	A	A	I	L	S	H	E	
K	T	L	D	I	V	-	-	-	D	F	K	S	I	L	C	F	I	Y	T	S	G	T	T	G	M	P	K	A	A	V	M	K	H	F
P	L	Q	L	T	D	-	-	-	K	P	S	M	L	I	Y	T	S	G	T	T	G	L	P	P	K	S	A	A	I	M	S	W	R	
P	A	S	A	S	A	-	V	Q	A	K	D	T	A	F	Y	I	F	T	S	G	T	T	G	F	P	P	K	A	S	V	M	T	H	H

FIG. 1H

FIG. 11

FIG. 11



336
331
304
196
353
335
344
295

[illegible]

FIG. 1K

[illegible]

FIG. 11

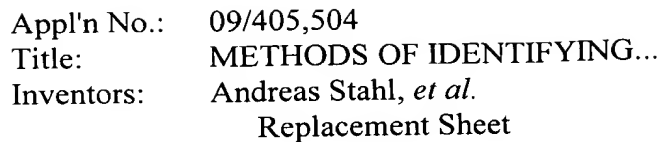
[illegible]

FIG. 1M

FIG. 1N

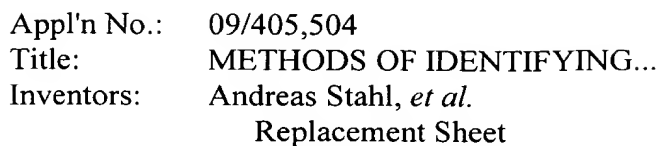


FIG. 10

FIG. 1P



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Inventors: Andreas Stahl, *et al.*
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mmFATP1	611	P	R	Q	T	S	D	R	L	F	F	L	D	L	K	Q	R	Y	V	P	L	D	E	R	V	H	A	R	I	C	A	Q	D	F	S	L
mmFATP2	585	P	T	V	I	K	D	T	D	L	Y	F	D	D	A	E	K	T	I	F	P	T	E	N	I	Y	Y	N	A	I	I	D	K	T	L	L
mmFATP3	578	P	S	V	L	S	D	P	D	D	F	F	D	D	D	I	Q	A	R	P	L	T	P	A	R	Y	Y	S	A	L	L	S	G	D	L	L
mmFATP4	471	P	S	V	V	K	D	P	D	D	Y	Y	L	D	D	Q	Q	R	V	P	L	D	Q	E	Y	Y	T	R	I	Q	A	G	E	L	L	
mmFATP5	627	P	S	V	V	A	D	P	D	D	I	F	L	D	D	A	Q	A	V	P	L	D	Q	E	Y	Y	Q	A	V	C	E	L	G	S	L	
ceFATPa	616	P	S	V	V	S	D	P	D	D	Y	Y	L	D	D	Q	Q	R	V	P	L	D	Q	E	Y	Y	Q	A	V	C	E	L	G	S	L	
scFATP		P	T	V	I	K	D	T	D	L	Y	F	D	D	A	E	K	T	I	F	P	T	E	N	I	Y	Y	N	A	I	I	D	K	T	L	L
mtFATP	562	P	S	V	V	A	D	P	D	D	Y	Y	L	D	D	Q	Q	R	V	P	L	D	Q	E	Y	Y	Q	A	V	C	E	L	G	S	L	

FIG. 1S

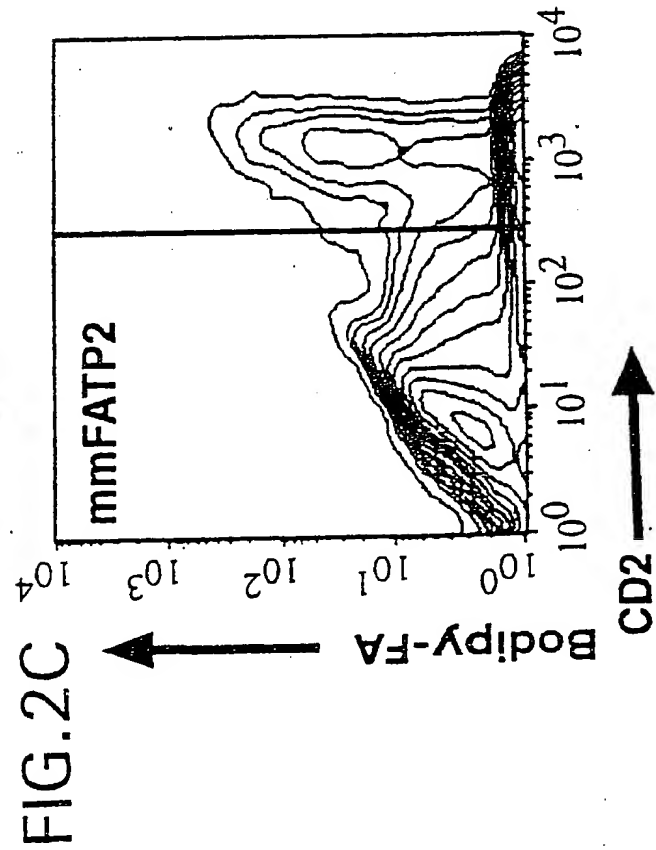
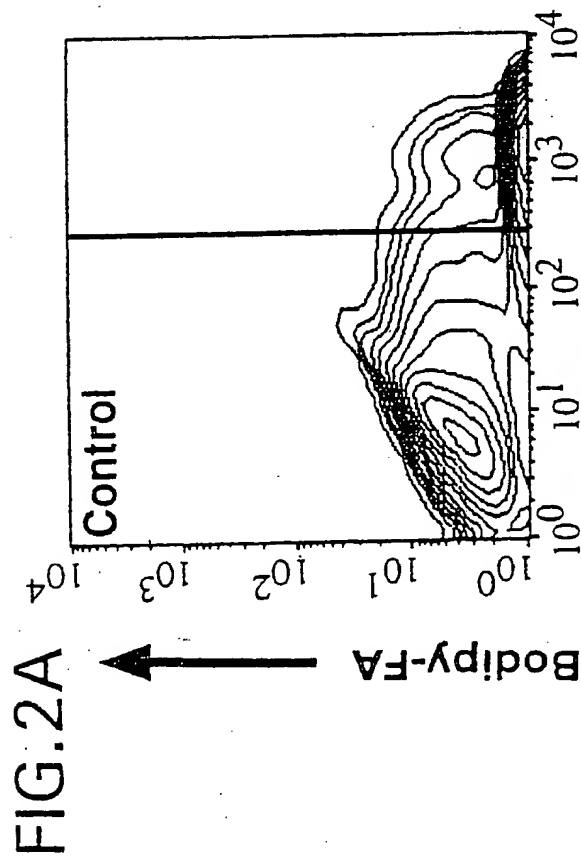
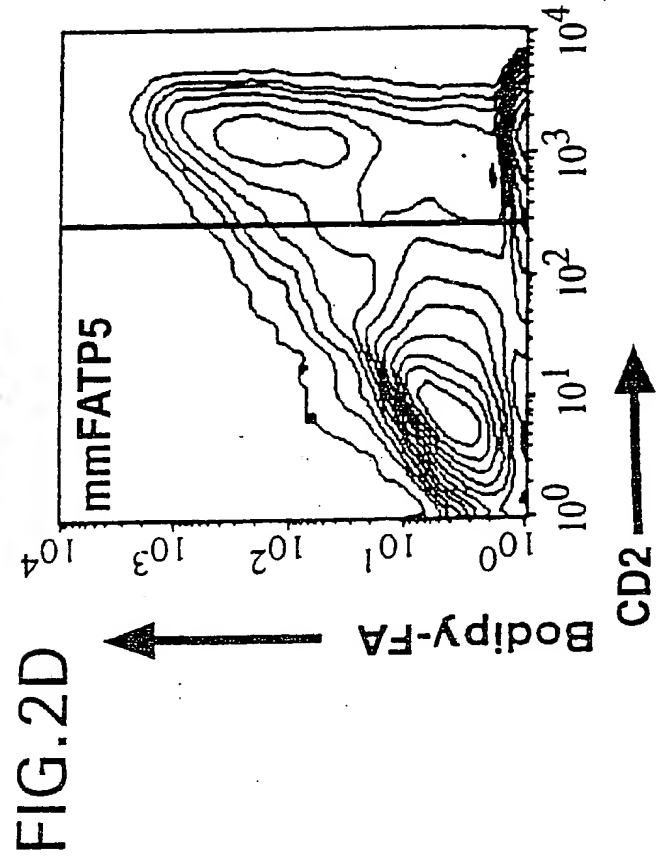
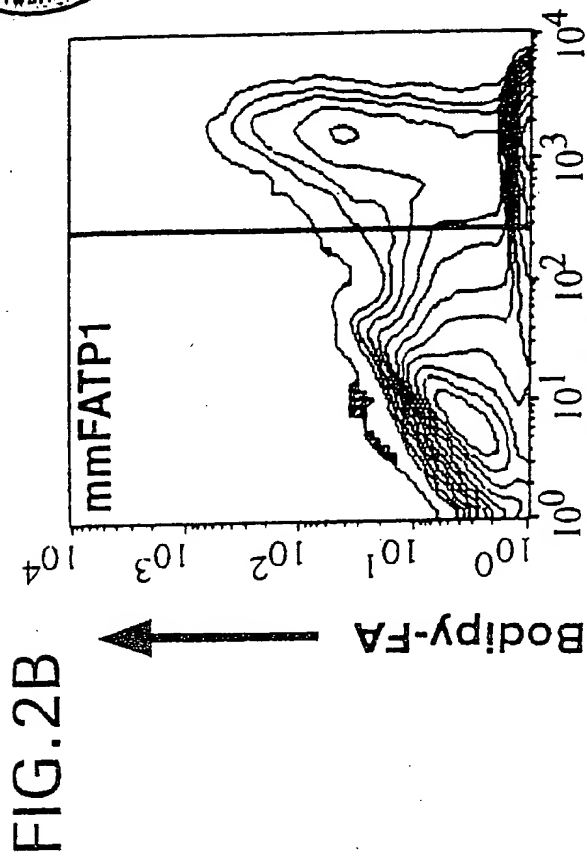




FIG. 3

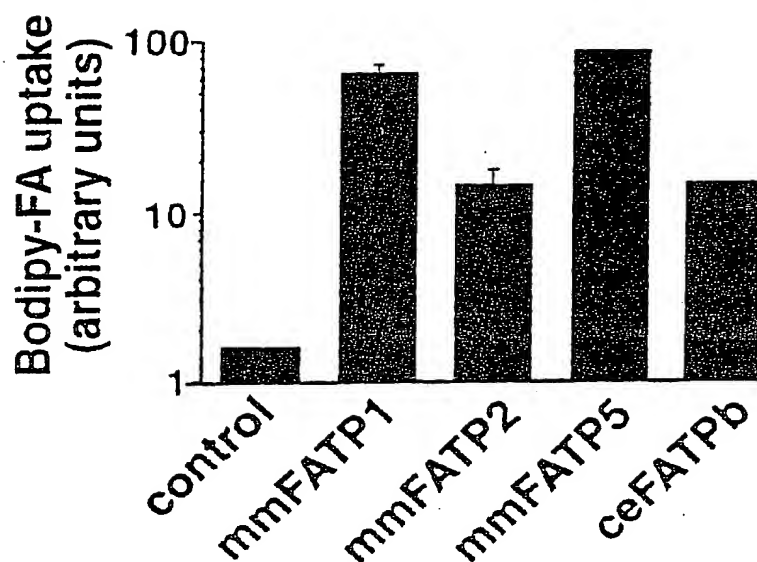


FIG. 4

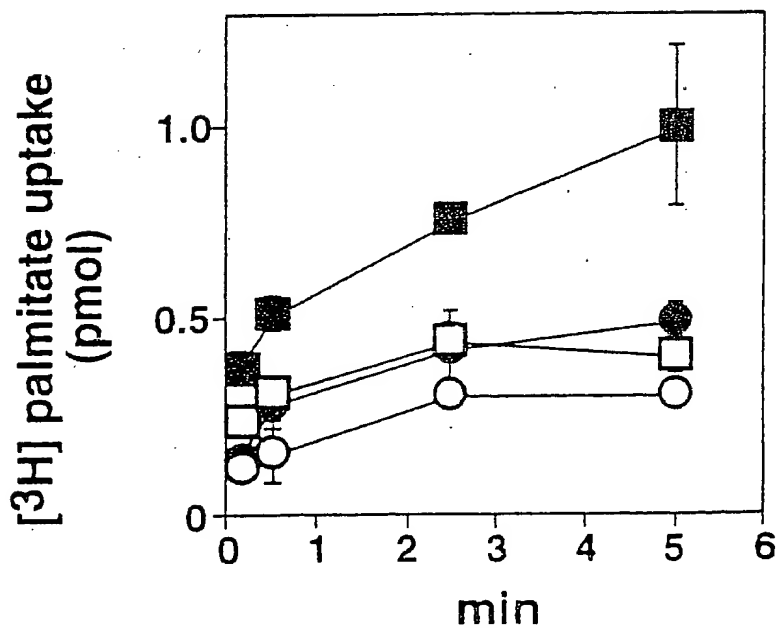
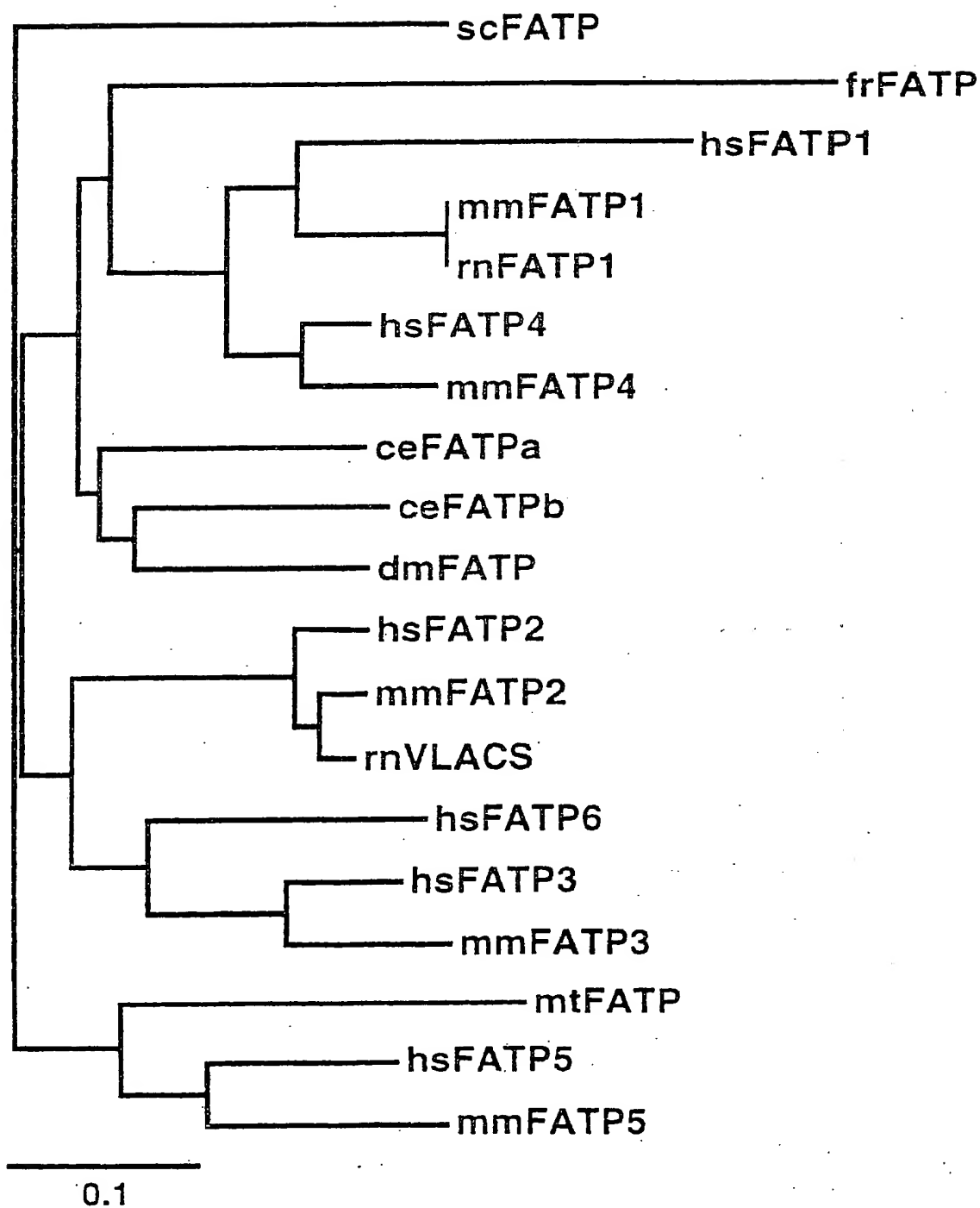




FIG. 5





246	FIF	TSG	TTGL	PKPAIL	SHERV	IQVSN	VLSFC	GCR	---	ADD	VVD	ML	PLYHT	IGLV	GL	CL	QV	GAT	CV	AP	KFS	AS	RFW	AE	CR	QH	GV	TV	mmFATP1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
265	YIY	TSG	TTGN	PKPAV	LKHFR	YFWL	AMG	AKA	FG	INK	SD	VY	IT	MP	VH	SA	AG	IM	G	IS	LI	AF	GS	TA	IR	KK	FS	AS	mmFATP5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
249	---	YTS	GTGL	PKSA	IM	SR	KS	SV	GC	QV	FG	---	HVL	HM	NE	ST	VT	AM	PL	FH	ST	AA	LL	GA	CA	LS	HG	ceFATPa																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
256	YIY	TSG	TTGL	PKAA	IV	HS	RY	VR	---	AF	GH	HS	YS	MP	AA	DL	V	CL	PL	YH	SA	GN	IM	GV	QV	IY	GL	scFATP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
205	YIF	TSG	TTGF	PKAS	VM	TH	RL	RA	LV	FG	GM	GL	RL	KG	SD	FL	VS	CL	PL	YH	NN	AL	IV	AV	SV	IN	SG	AT	mtFATP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	100	110	120	130	140	150	160	170	180																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
335	QYI	GEI	CRY	LLRQ	VR	DF	QHR	VR	LA	VN	GL	RE	---	AE	---	---	---	---	---	---	---	---	---	---	---	---	---	mmFATP1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
353	LAV	GEI	LR	VC	NP	EQ	PE	DK	IHT	VR	LA	MT	GL	RA	VN	KN	FO	QRF	CP	IR	ME	FY	GS	TE	---	---	---	---	mmFATP5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
338	QYI	GEI	CRY	LLA	AN	PC	PEE	QH	NV	RL	MW	EN	GL	RG	QW	KE	FV	GR	FG	IK	KE	---	---	---	---	---	---	ceFATPa																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
345	QYV	GEV	CRY	LLH	PI	SK	YE	KM	HK	VV	AV	YV	EN	GL	RP	DI	WQ	DR	KR	FN	---	---	---	---	---	---	scFATP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
295	VW	I	GEI	CRY	LLN	QAK	PI	DR	AH	QV	RV	IC	EN	GL	RP	EL	WQ	DR	KR	FN	---	---	---	---	---	---	mtFATP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	190	200	210	220	230	240	250	260	270																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
419	IR	L	V	K	V	N	E	D	T	M	E	P	L	---	R	D	S	E	G	L	C	I	P	C	Q	G	E	P	G	L	I	V	S	Q	I	N	---	Q	O	D	P	L	R	R	F	D	G	Y	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	

FIG. 6



Appl'n No.:
Title:
Inventors:

09/405,504
METHODS OF IDENTIFYING...
Andreas Stahl, *et al.*
Replacement Sheet

	mmFATP1	mmFATP2	mmFATP3	mmFATP4	mmFATP5	mmFATP1	mmFATP2	mmFATP3	mmFATP4	mmFATP5	mtFATP	scFATP	ceFATPa	ceFATPb	mtFATP
mmFATP1	100.0														
mmFATP2	50.1	100.0													
mmFATP3	51.8	53.3	100.0												
mmFATP4	72.6	48.4	51.7	100.0											
mmFATP5	50.2	54.0	54.4	50.8	100.0										
mtFATP1	97.5	49.7	51.6	71.4	50.4	100.0									
mtVLACS	50.7	95.2	53.0	50.9	53.6	50.3	100.0								
ceFATPa	54.1	48.6	47.2	53.6	47.0	53.9	49.1	100.0							
ceFATPb	55.7	48.8	46.8	54.2	47.3	54.9	49.0	60.3	100.0						
scFATP	45.5	43.2	42.3	47.0	42.7	45.5	43.9	45.3	43.1	100.0					
mtFATP	47.5	47.8	43.9	48.2	47.2	47.1	48.3	44.9	44.5	42.3	100.0				

FIG. 7



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mmFATP3 DNA sequence

```
ACCACTCAGCTATAGGCAACAGCTATGACCTGGCATGTAC 40
GGGTAAAGCTTTGGGCGGCTGCGAGGCTTGGCTCTACAGCGGCG 80
GGCGACCGCGCAAGGCTCTCAACAGCGCGTGCAGTCTGGGCT 120
GGCGTCTGGCGTACCTGCGCGCGGAGGAGCGGCAACACAC 160
CTTCTCTCATGCAAGCGCGCGGAGCGGCTTTAGCTAGCGGCA 200
GCTCAGCGCGCAACGCAACCGGCTTTCTGGCGCGCTTTCTTC 240
GGCGACCGCGGCTGCAAGCGCGCGCGCGGCAAGCTTGGCGCA 280
GGCGAGCACTCAAGCAAGCGCGAGCGGCTGGCGCGCTTGGCT 320
GCACTCGCGGCTGCTACAGCGCAAGCGCGCGCGGCTCTTCG 360
CAACCGCGCGGCAAGCTGCGCGCTGCTCTCTGCAAGCGCGCG 400
```

FIG. 8A



GCATTTTCCTTTTGGATTTTGGTTGGCACTGGCCAAAGCTGGC 440
CTGGCGACGGCCCTTTTGTGCCCCACCGCTTTTACGGCGAGCAC 480
CCCTGCTGCACTGCTCCCGCAGCTGCGGTGCTTCACTGGGCT 520
CGTGTCTGGCCACACAGTTCTGCACTGCTGCTGCGCGCAC 560
CTGCGCGCGCTTTTCAAGCCATGGGGCTCCACCTATGGGCTCA 600
CGGGCCCTTCAAACTAATGTAGCTTCAATCAGCAATTTTGGT 640
ATCGCAAGCAGCACAACCAAGTGGATCAGCCAGTGGCGGGG 680
TAACCTCTCTGCCCCCCCCAACAATAATGCACACCTGCTGT 720
ACATCTTCAACCTCTGCGCACTACTGGCGCTGCCCCAGGCTGC 760
TCCATATCAGTCTCTCTCAAGGTTCTACAGTGGCAGGGATTTC 800
TAACATCTCTGTCTCAAGTCTACAGGAGCAAGTCTCTTACC 840
TGGCACTCCCACTGTAACTACATGTCTGCGCTCCCTTTCTGGG 880
CATTTCTGGGGCTGCTTTGGGCAATTTGGGGCCACCGTGGTCTG 920
AAACCCCAAGTTCTCAGCTACGCAAGTTCTTGGCAAGATTGOC 960
ACAAACACAGCGGTCACTGTCTTCCAGTACATTGGGGAGTT 1000
GTGGCCATAACCTGCTCAACCAAGCCCCCGCAAGGCACAG 1040
TTTCAACATAAGCTGCGCTTGGCACTGGGCAAGTGGGTTTC 1080
GCCCCACACCTGGGAGCGTTTCTGCGGCGATTTCGACC 1120
TCTGCACTACTGCACTGCTATGGCCATCACTACAGGGCAAC 1160
GTAGCTACGTTCAATTACACAGCAACCGCAGGGTTCAGTGG 1200
GGCCAGCTTCTGCGCTTACACAGCACTCTTCCCCCTTCTC 1240
CTTCATTGCACTACGATGTCATCAACAGGGCAGCCATTTGG 1280
AATGCCCCAGGGGCACTGCACTACCACTCTCTCCAGGTGAGT 1320
CAGGCTACTGGTGGGCCCCAGTCAAGCAGCAAGTCCCCCTT 1360
CCTGGGCTATGCTGGGCGCTCCGCAAGCTGGCCACAGCAAG 1400
CTGCTCAAGCATGTCTCTTCTGGCTCTGGGCAAGTTTCTTCA 1440
ATACTGGGCAACCTCTTGGCTCTGTCTCAAGCAAGGCTTTCT 1480
TCACTTCCACCACTGCTACTGCAACACCATCAGGTGGCAAG 1520
GTCACCAATGTGGCCACAACCTCAAGTGGCTCAGGTCTTGG 1560
ACACCTTGCCTTTCTCTTCAAGCAGGTCAACATCTATGGAGT 1600
CAGGCTGCCAGGGCAGCAAGGCAGGGCAGGCATGGCGGCC 1640
TTGGCTCTGGGCCCCCGCAGGCTCTCAACCTGCTGCAAG 1680
TCTACAGCCATGTTTCTCTCAACTTGGCCACCGTATGCCCC 1720
AACCTGGCTTCTCAGGCTCCAGCAATCTTTGGCCACTACT 1760
CACACCTTCAAAACAGCACAAGCTTAGCTGGCCATCAGG 1800
GCTTTCACCCAGTCTACTCTCTCAACCACTCTATGTTCT 1840
GTCACCAAGATATAGGGGCTAAGCTGCCCCCTCAACCTGCC 1880
CGCTACAGTGGCCCTCTGCTCTGCAACCTTCCATCTCAA 1920
AACCTCCACTTCAAGGCAAGGCGCTGGCAAGGTACAGGCTAC 1960
CATGGCTGTACACAGGCAAGGCTTTTGGGCTATCTTTTCTAT 2000
ATGCAGTCAATTATTTTGTAAATAACAGCTGCAAGCTTAAAA 2040
AA 2080
AAAAAAA 2087

FIG. 8B



mmFAIP3 protein sequence

AADPESSSESGCSLAWRLAYLAREQPTHTFLTHCAQRFSYAEAEERESNRIA 50
RAFLRARGWIGCRRGSGRGSTEECARVAPPAGDAAARGITAPPLARGATV 100
ALLLPAGPDFLWIWFLAKAGLRFAFVPTALRRGPLLHCLRSOCASALVL 150
ATEFTLESLEPDLPALRAMEHLWATGPEINVAGISNLLSEAADQVDEFVP 200
GYLSAPQNMIDTCLYIFTSGITGLPKAARTSHLKVLOOQGFYHLCGVHQE 250
DVTYIALPLYHMSGSLLGIVGCLGIGATVVLKPKFSASQFWDQKHRVLT 300
VFQYITGELCRYLMVNQPPSKAEFDHKVRLAVGSGLRPDIWERFLRRFGPLQ 350
ILETYGMEGNVATFNNTGRQCAVGRASWLYKHIFPFSLIRYDVMIGEPT 400
RNAQGHOMITTSFGEFGLLVAPVVSQOSPFLGYACAPETAKDKLLKDVFWSG 450
DVFFNTIGDLLVCDEQGFLEHFDRTIGDTRWKGENVATTEVAEVLEHLEDFL 500
QENVNTYGVTVPGHEGRAGMAALALRPPQALNLVQLYSHVSENLPYARPR 550
FLRLQESLATTEITFKQOKVRMANEGFDPSVLSDFLYVLDQDTCAYLPLTP 600
ARYSALLSGDLRI 613

FIG. 9

mmFAIP4 DNA sequence

CCCAAGCGTCCGCCCCAAGCGTCCGCGCATGGCCAAAGCTGGG 40
CGTGCAGCGGGCTCTCATCAACACCAACCTTAGGCGGCAT 80
GCCCCGCGCCACTGTCTTGACAACTCAAGGCACGAGCTC 120
TCATCTTTGGCAGTGAGATGGGCTCAGCTATCTGTGACAT 160
CCATGCTAGCGCTGCAAGCCCACTCAGGCTCTTCTGCTCT 200
GCATCTGCGGAGGCGGAGCAGAGGCGCGGTCAGCACAGAGC 240
ATCTGCAACCTCTTCTGCAAGATGCCCCCAAGCAACCTGOC 280
CAGTCACCCAGACAAGGGTTTTACAGATAAGCTCTTCTAC 320
ATCTACACATCGGGCAACACGGGGCTAOCCTAAGCTGCCA 360
TTGTGGTGCACAGCAGGATATTATCGTATGCGCTTCCCTGCT 400
GTACTATGCATTCCGCGATGCGGCTGATGACATTGTCTAT 440
GACTGCGTCCCGCTCTAACCCTCAAGCAGCAACATCGTG 480
GGCATTTGGCAGTGGCTTACTCCAGGCGATGACTGTGGTAT 520
CCGCAACAGTTCTCAGGCTCCCGGTTCTGGCATGATTGT 560
ATCAAGTACAACTGCACAGTGGTACAGTACATTGGCGAGC 600
TCTGCGGCTAOCCTCTCAACAGGCAACCGGTCAGGCTCA 640
GTCTCGGCACAAGGTGCGCATGGCACTGGGCAACGGTCTC 680
CGGCAGTCCATCTGCAACCGACTTCTCCAGCGGTTTCCACA 720

FIG. 10A



TCCCCCAGGTGGGCTCAGTTCTATGGGGCCACTCAATGCAA 760
CTGTAGCCCTGGGCAACTTTTCAAGCGGGGTGGGGGCTGT 800
GGCTTCAATAGCGGCATCCTGTCTTTTGTGTACCTTATCC 840
GTTTGGTACGTGTCAATCAGGATAACCATGCAACTCATCCG 880
GGGACCCGATGCAAGTCTGCATTCCCTGTCAACCATGGTCAG 920
CCAGGCGCAGCTGGTGGGTGGCATCATCCAGCAGCAACCTC 960
TGGCGCCGTTTCCAGCGGTACCTCAACCATGGGTGCCAACA 1000
CAAGCAAGATTGCTAATGATGTCTTCAACAGGGGCAACCA 1040
GGCTACCTCACTGGTCAAGTCCCTGGTCAATGCAATGCTGG 1080
GTTACCTGTACTTCCGACATGGCACTGGGCAACGTTCCG 1120
CTGCAAGGGGAGCAATGTATCTACCACTCAGGTCAGGGC 1160
ACACTCAGCGCGCTGCTTCAATATGGCAATGTGGCAGTTT 1200
ATGGTGTTCAGGTGGCAGCAACTCAAGCGCGCAGCAGCAAT 1240
GGCTGCGGTGGCAAGTCCCATCAGCAACTGTCACTGGAG 1280
AGCTTTGGCAGACACCTTCAAAAAGCAGCTGCTCTGTATG 1320
CCCCCCCCATCTTCCCTGGGCTTCTTGGCTCAGCTGGCAAA 1360
CACAGGCAACCTTCAAGTTCCAGCAACACAGTTGGGCAAG 1400
CAGGGCTTTTCACCCATCTGTGTGTCAAGCAACCGCTGTCT 1440
ATCTGCAATGCTGGCAAGGCGTGGTACGTTGGCACTGCAACA 1480
GCAGGCTTATACCCCGCATCCAGGCAAGGCAAGCTG 1520
TCATTTCCCCCCTACATCCCTCTCAGGGGCAAGCATGCTG 1560
CATTCAGAGCCCTAGCGTCCACCCCAAGGGTCCCTGGGCA 1600
ATGCCAGACCAAGCTAGCAGGGGCGCGCACTTCCGCCCCCT 1640
AGGTGCTCATCTCCCCCTCTCCCAAACTGCCAAGTCACTCA 1680
CTGCGGCTTCCCCCAACCTTCCAGAGGCTTTCTGTCAAGT 1720
CTCATCCAGCTGTGTCTTCTGGTCCAGGGGTGGCCCCCTG 1760
GGCCCCAGGGTTTCTCTATAGGCTCCCTTTAGCATGGTATCTT 1800
GGGTCCAGCGGGCCAGGGTGTGGCAGAGGCTCACTAAGA 1840
TCCCTCCAATCAGCAAGGCAAGCTTACAAAGCAACCAAGGCA 1880
AAGCTGTAGCACTCAGCAAGCTAAGTGGCCAGCACTATA 1920
GTTGGCCAGTTCATCCCATGTCCACAGCAATCTTGGTCCAG 1960
AGCTGCCAAAGTGTCACTCTCTCCCTGGCTGCACTCTGGG 2000
CAAAAAGAGCAGCATGTGGCCACTGGGCACTGTCTCAA 2040
CAAGTCAGCATCACACTCAGTCCCTTGTCTCTCCAGCTT 2080
CCCTTGTCTTGTCTCTGGGCAAGGCAAGCAAGTGTCTCTG 2120
TCTGTCTTCCCTGGCTGTCTGTCTAGTCTGTGTGTCTCTC 2160
CATCTGTCTTGGCTCAGTGTGGGTGCAACAGGCATCAGG 2200
ACAGTGTGGCTCAGGGGCTAATAAACTCTGCTTCACTCC 2240
TCTTAAAAA 2280
AAAAA 2301

FIG. 10B

mmFATP4 protein sequence

HASAHASGMAKLGVEAALJININLRDALRHCLDTISKARAL 40
 IFGSEMASAICETHASLEPTLSLFCSGSWEPSTIVPVSTEH 80
 LDPLLEDAPKHLPSHPDKGFTDKLFYIYTSGITGLPKAAI 120
 VVHSRYRMAISLVYYGFRMRPDDIVYDCLPLYHSSRKHRG 160
 DWQCLLHGMITVWIRKKFSASRFWDDCTKYNCIVVOYTIGEL 200
 CRYLLNQPPREAESRHKVRMALGNGLRQSTWIDFSSRFTI 240
 PQVAEFYCGATECNCSLGNFDSRVGACGENSRILSFVYPIR 280
 LVRVNEDIMEIIRGPDGVCLPQOQFGQFQGLVGRITIQODPL 320
 RRFEDGYLNQGANKKIANDVFKKGDQAYLITGDLVLMDELG 360
 YLYFRDRITGDIKFKGENVSTTEVEGITLSRLIHMALVAVY 400
 GVEVPGIEGRAGMAAVASPISNCDLESFAQITLKEELPLYA 440
 RPIFLRFLPELHKITGIFKFQKTELKKEGFDPSVVKDPLFY 480
 LDARKGCYVALDQEFAYTRIQAAGEKL

506

FIG. 11

mmFATP5 DNA sequence

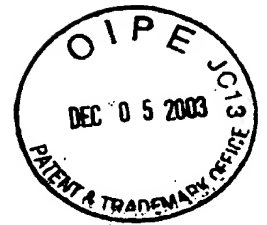
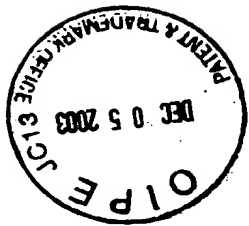
CACATCATCAGAGCTAAGACAGACTACAGGCTCTCATCTAC	40
TTTCAGAAAGAGGCAATGGCATGGGTATTTGCAAGAACTA	80
ACCTTACTGCTGTGTGCTGTCTGTCTGGTTGGGCTGGGGC	120
AGCCCCCATGGGACAGCCTATGGCTCTGGGCGTGGGTG	160
GTTCCTGGGCAACCCCCACATGCCCTGTGTGCTGCTTGGCTTG	200
GCATGTGCTGGGCAGACCCCTGGATCAGCTCCCTGCATGCCCC	240
ACTGGCTCAGCCCTGGTAGGAGCAGCTCTTACCTTATTCT	280
ATTGCCCTCTACAGGCCACCCCCAGGGCTACGCTGGCTGCAT	320
AAACATGTGTGGCTTTACCTTCAAGATGCTTTTCTATGGCC	360
TAAAGTTCAGGGCAGGCGCTTAACAACATCCTCCAGACAC	400
CTTTGTGCATGCTTTACAGCGGCAAGCACTGGCATGGGCT	440
CACCGGGTGGGCTTGGTGTGTACTGGGTCTCAGGGCTCT	480
CAATCACAATAAGCCAGCTGGATGCCAGGTCCTGTACGGC	520
AGCATGGGTCCCTCAAAGCAAAGCTCAAGCATGGCGTATC	560
CAGAACACAAACAGATGCTGCTGCTATCTTTAGTTCTCCGCT	600
CCAAACCATTTCTGCTTTGAGTGTGTTTCTGGGGTTGGC	640
CAAGTTGGGCTGGGCTGTGGGCTGGATCAATCCACACAGC	680
CCAGGCAATGCCCTTGCTACACTCTGTACGGAGCTCTGGGG	720
CCAGTGTGCTCATTTGTGCATCCAGACCTCCAGGCAACCT	760
GCAACAAAGTCTTCCCAAGCTGCTAGCTCAGCAACATTTCAC	800

FIG. 12A



TCCTTCTACCTTGGGCTACAGCTCACCCACCCCGGAGTAG 840
AGGCTCTGGGAGCTTCCCTGGGATGCTGCACTTCTGCAACC 880
AGTACCTGCGAGCCCTTCCAGCTACCTTTAAGTGGAAATCT 920
CCCTGCCATATTTCATCTTTACTTTCAGGCACTACTGGACTCC 960
CAAAGCCAGCCATCTTTATCACATGAGGGGGTCATACAACT 1000
GAGCAACGCTGCTGCTTCTGCTGCTGCTGCTGCTGCTGCT 1040
CTGGCTCTATGAGCTTCCCTACCTTCTGCTGCTGCTGCTGCT 1080
TTGCTCTGCTGCTTCTGCTGCTGCTGCTGCTGCTGCTGCT 1120
CTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1160
GCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1200
TGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1240
AACCAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1280
ACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1320
GCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1360
AGTGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1400
GGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1440
CTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1480
GCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1520
CCAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1560
AACCAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1600
CAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1640
CTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1680
AAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1720
CCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1760
TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1800
TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1840
CATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1880
GGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1920
CCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1960
GCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2000
CTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2040
TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2080
CATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2120
AATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2160
TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2200
CTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2240
CTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2277

FIG. 12B



mmFATP5 protein sequence

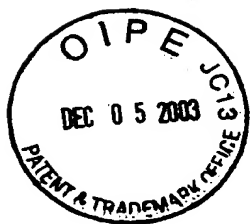
MAIALRWELGDPTCLVLLGLALLGRFWLSSWMFHWLSLVG 40
AALITLFLPLQPPFGLFWLHKDVAFTEKMLFYGLKFRRL 80
NKHPPETFDALERQALAWFDRVALVCTGSEGSSTINSOL 120
DARSCQAAWLKAFLKDAVIQNTIRDAAILVLPSKITISAL 160
SVFLGLAKLGCPCVAVINPHSRGMPLLHSVRSSCASVLIVD 200
PDLQENLEEVLPKLLAENIHCFYLGHSSPTPGVEALCASL 240
DAAPSDPVPASLRATIKWKSPAIFITFTSGTIGLPKPAILS 280
HERVIQVSNVLSFCGRADLVVDVLPYHTTIGLVLGFLG 320
CLQVGATCVLAPKFSASRFWAECRQHGIVITLYVGEILRY 360
LCNVPEQPELKIHTVRLAMGIGLRANWKNFQQRFGPIRI 400
WEFYGSTEGNGLMNYVGHOGAVGRITSCILRMLTPFFELMQ 440
FDIETAEPLRLKQGFCLPVEPKPGLILLIKVRKNQFFLGY 480
RGSQAESNRKLVANVRVGDLYFNTIGLVLLDQEGFFYFQ 520
DRIGDIFRWKGENVSTIGEVECVLSSLDFFLEENVVYGVFVP 560
GCEGKVGMAAVKLAPCKTFDQKLYQHVRSWLPAYATPHF 600
IRIQDSLETNTNYKLVKSRLVRECFDVGILLADPLYILLNK 640
AQIFRSIMFDVYQAVCEGIWNL 662

FIG. 13

hsFATP2 DNA sequence

ATGGCATTCAGCTCTTTTCCCTGCACAAAGTGGATCAAGTATC 40
AACTCAACCTATCCCAGATCATGGAGGCTCAAGTCACT 80
TTTTCACCTCCTGCTTATACATTTATACCTTCTGCAACCA 120
CAGGCTCTTCCAAAAGCAGCCATGATCACTCATCAGGCGAT 160
ATGGTATGCAACTGGCCTCACTTTTGTAAAGCGCATTCAG 200
GCAGATGATGTCATCTATATCACCTCTGCCCCTTTTACCACA 240
GTGCTGCACCTACTCATTTGGCATTCAGGATGATTTGTTGGC 280
TGGTCTACTCTTGGCTTGGGACTAAATTTTCAGCCAGC 320
CAGTTTTCGCTATCACTGCACAAAATACAACTCACCTGICA 360
TTTCACTATATCGGTCAGCTGCTTGGTATTTATGCTACTC 400
ACCACAGAAACCAATGACCGTGCATCATAAAGTCACTG 440
GCCTGGCAATGCGTTACCGAGCATGTGTGGCAGACAAT 480
TTGTCAAGCATTTTGGGACATATGCATCTATCACTTCTA 520
TGCTGCCACAGCAAGCAATATTTGCTTTATCAATTATGCG 560
ACAAAAGTTGGTCTGTTTGGCAAGAGTAAACTACCTACACA 600
AAAAAATCATAACTTATCACTGATTAATATCATGTGGA 640
GAAAGATCAACCTGTCCGTCATCAAAATGCATATTGCGTC 680
ACAGTTCCCAAGGTCAAGTTGCACTTCTGGTTTGCAGAAA 720
TCACACAACTTACACCATTTAATGGCTATGCTGCAGCAAA 760
GGCTCAGACACACACAAAACCTCAGCATGTCTTTAAG 800

FIG. 14A



AAAGCAGACCTCTATTTC AACAGTGGACATCTCTTAATGG 840
TTGACCATCAAAATTTTCATCTATTTCACGACAGTTGG 880
ACATACATTCCGGTGGAAAGGGCAAAATGTGGCCACCACT 920
CAAGTTGCTCATATAGTTGCACTGGTTGATTTTTTTTCCAA 960
GCAAGTAAAATGTTTATGCGAGTGCATGGGCCAAGATNAT 1000
CGAGGTTGCAATTGGCATGGCNITCCNITCAAAATGGAAA 1040
CAAAACCATGCAATTTTCATGCAAGCAATTTTTTTCAGNAC 1080
ATTGCTCATTAACCNACCTAGTTATGCAAGGCCCCGGTTTT 1120
NTAAGTAANACAGGACACCATTTGACATCACTGCAATTTTA 1160
AACACCGCAAAATGACCTTTGGTGGAGGAGGGCTTTAACC 1200
CNGCTGTTCATCAAGATGCGCTGTATTTTTCTTGGATGACA 1240
CAGCAAAAATGTATGTGCGCTATCACTGAGGACATNTATAA 1280
TGCCATAAGTGTAAAACCGTGAATINICATATTTCOCA 1320
GCAGGATAATTCAACATTTTCCAGAAAGCAAACTCAATGGAC 1360
AGCCACTTCATATAATCCAACCTTAAATTTGATTGACATT 1400
GTGAGCAAAATTTGTAGGAAATTTGCATACCGGTAAAGGG 1440
ACACTTTTTTTAAATAACAGTTGAGTCTTTGCAAGTAAAAA 1480
GATTTAGACATTATTATTTTTTCAGTGTGCACTTACTGTTT 1520
GTATTTGCAAACTGAGCTTTGTGCGAGGCAAGGCATTATTT 1560
TTTAAAAATACCTAGTAAATTAAGAACACCAACATGTGAA 1600
AAAAAAAAAAAAAAAAAAAAA 1622

FIG. 14B

hsFATP2 protein sequence

YIYISGTTTCLPKAAMTHQRIWYGTELTVSGLKADVTY 40
ITLPEFYHSAALLIGTHGCTIVAGATIALRTKFSASQFWDCC 80
RKYNVIVITQYIGELLRYLONSPOKENDRLHKVRLALGNEL 120
RGDWWRQFVKRFGDICTYEFYAATGNTGFMNYARKVGAV 160
GRVNYLQKKLITTYDLIKVDVEKDEPVRDENGVCVRVKEGE 200
VGLLVCKTITQLTFPENGYACAKAQTEKKKLFDVFKKGLYF 240
NSGDLIMVLHENFTYFHLRVGDLFRWKGENVATTEVADIV 280
GLVDEF 286

FIG. 15

hsFATP3 DNA sequence

CAATTGGGCAACCCCAAGGGCACTGTATGGCCACATCTCC 40
AGGTGAGCCAGGGCAAGTTGCTAAAGCATGTCTTCCGGCC 80
TGGCCATGTTTTCTTCAACACTGGGCAACGCTGGTCTGTC 120
CATCAACCAAGGTTTTCTCCGCTTCCATCATCTGCTACTGAG 160

FIG. 16A



ACACCTTCAGGTCGAAGGGGCAATGTGGCCACAACCGA 200
GGTGGCAGAGGTCCTTCAGGGCCCTAGATTTTCTTCAGGAG 240
GTCAACCTCTATGCACTGCTGGCCAGGGCATCAAGGCA 280
GGGCTGCAATGGCAGCCCTAGTCTGCGTCCCCCCCCACGC 320
TTTGGACCCCTATGCAAGCTCTACACCCAGGTGTCTGACAAC 360
TTGGCCACCTTATGCCCCGGCCCCGATTCCCTCAGGCTCCAGG 400
AGTCTTTTGGCCACCACAGACACCTTCAAAACAGCAGAAAGT 440
TGGCATGGCAAATCAGGGCTTCGACCCCCAGCACCCCTGTCT 480
GACCCACTGTACGTTCTGCAACAGGCTGTAGGTGCCCTACC 520
TGCCCCCTCACAACCTGCCCGGTACAGCGCCCTCTCTGGCAGG 560
AAACCTTCGAATCTGCAACCTTCCACACCTGAGGCACTG 600
ACAGAGCAACTCTGTGCGGGTGGGGGGGGGTTCAGGGTGTAC 640
TGGCGTGTACGGCATCTTTTCTATACCAACTGGGGTCA 680
CTATTTTGTAAATAAATGTGGCTGGAGCTGATCCAGCTGTCT 720
TCTGACCTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAA 753

FIG. 16B

hsFATP3 protein sequence

QFGTFRGTVWPHLQVSQKLLKDVERPGLVFFNIGDLLVC 40
DDQGFRLRFHRTIGDIFRWKGENVATTEVAEVFFALDFLOE 80
VNVYGVIVPGHEGRAGMAALVLRPFHALDLMQLYTHVSEN 120
LPPYARPRFLRLQESLATTEIFKQOKVRMANEGFDPSTLS 160
DPLYVLDDQAVCAVLEPLTTARYSALLAGNLR 191

FIG. 17

hsFATP4 DNA sequence

TCAAGTACAACCTGCACCATTTGTTCATANCATTGGTGAACCTG 40
TGCCGNTAACCTCTCTCAACAGCCACCCGGGAGGCAGAAA 80
ACCAGCACCAAGGTTCCCATGGCACTAGGCAATGGGCTCCG 120
GCAGTCCATCTGCAACCAACTTTTCCAGCCGCTTCCACATA 160
CCCCAGGTGGCTCAGTTTCTACGGGGGCCACAGAGTGAACCT 200
GTAGCCCTGGGCAACTTCCACAGCCAGGTGGGGGCTGTGG 240
TTTCAATAGCCGCATCTGTCTCTGTGTACCCCATCCGG 280
TTGGTACGTTGTCAACAGGACACCATGCAAGCTCATCCGGG 320
GGCCGCAAGGGGCTGTGCATTCCTTGGCCAGCCAGGTGAGCC 360
GGGCGAGCTGGTGGGGCCCATCATCCAGAAAGACCCCTGT 400
CGCCGCTTCCATGGCTAACCACACAGGGGGGCTAACAACA 440
AGAACATTGGCAAGCATGTCTTCAACAAGCGGGCAACAGGC 480
CTACCTTACTGGTCAATGTGCTGGTCAATGCAAGCGTGGGC 520

FIG. 18A



TACCTGTACTTCCGACACCCCACTGGGCAACGTTCCGCT 560
GCAAGGTGACAACGTGTCCACCACCCAGGTGCAAGGCAC 600
ACTCAGCCGCGCTGCTGCAATGGCTCAAGTGGCGGTGTAT 640
GGTGTCCAGGTGCCAGCAACCCAGGCGCGGCGCGCAATGG 680
CTGCTGTGGCCAGCCCCACTGGCAACTGTCACTTGGCAGC 720
GCTTTGCTCAGGTC 734

FIG. 18B

hsFATP4 protein sequence

IGELCRYLLNQPPREARNQHVRMALGNGLRQSIWINESS 40
RFHLPQVAEFYCATENCSLGNFDSQVCAOGENSRILSFV 80
YPIRLVRVNEDIMELIRGPDGVCIPOQPFEPGQLVGRITQ 120
KDPLRRFDGYLNQGANNKTKAKDVFKKGDQAYLTQDLVM 160
DELGYLYFRDFTGDIFFWKGENVSTTEVEGILSRLLDMAD 200
VAVYGVVEVPGEIG 213

FIG. 19

hsFATP5 DNA sequence

CNTGCGCTCTGTGTAACCAAGTGATGGCACTTTGTGCTTGGCA 40
TCCTCGGCTGCTTACATCTCGGAGCCACCTGTGTCTCGC 80
CCCCAAGTTCTCTACTTCTCTGCTTCTGGCATCACTGTGG 120
CAGCATGGCGTGACAGTGATCTGTATGTGGCGCAGCTCC 160
TGCGNTACTTGTGTAAACATTGCCCCAGCAACCAAGGACCG 200
CACACATACAGTCCGCGCTGGCAATGGGCAATGCACTACGG 240
GCTCATGTGTGGGAGACCTTCCAGCAGCGTTTCCGTTCT 280
ATTTCCGATCTNGGCAAGTCTTACGGGCTYCCACAGAAGG 320
GCAACATGGGCGCTTTAGTTCACCTATTGTGTGGCGGCGCTG 360
CGGGGSCCTGGRGGCAAGCATGCAAGCTTGGCTCTCTCGAA 400
TGCTGTCCCCCTTTGAGCTGGTGCAGTTCCACATGGAGGC 440
GGCGCAGCCTGTGAGGCACAATCAGGGCTTCTGCTATCCCT 480
GTAGGGCTAGGGCAGCGCGGCGCTGTGTCACTAAGGTGG 520
TAAGCCAGCAACCCCTTGTGGGCTACCGCGGCGCGCGACA 560
GCTGTCCCAACCCAGCTGGTGGCAACGTGGCGCAATCG 600
GGCGACGTTTACTACAACACCGCGGCAAGTACTGGCCATGG 640
ACCGCCAGGCTTCTCTACTTCCGCAACCACTCGGGCA 680
CACCTTCCGATGCAAGGCGGAGAACGTGTCCACGCACGAG 720
GTGCAAGGCGGTGTGTGCGAGGTGCACTTCTTGCACAGG 760
TTAAGCTGTATGGCGTGTGCGTCCAGGTGTGTACGGTAA 800
GGTGGCATGGCTGCTGTGGCATTTAGCCCCCGGCGCACT 840

FIG. 20A



TTCCAGGGGCAAGTTGTACAGCAAGTTCCGGCTTGGC 880
TCCCTGCCCTACGCTACCCCCATTTCATCCGCATCCAGCA 920
CGCCATGCAGGTACAGCAAGTTCAAACTCATCAAGACC 960
CGGTTCGGTGGGTACGGCTTCAATGTGGGGATCGTGGTTG 1000
ACCCCTCTGTTTGTACTGGACAACCGGGGCCCCAGTCCCTCCG 1040
GCCCCTCAAGGCACAATGTACAGGCTGTGTGTGAGGCA 1080
ACCTGCAGGGCTCTGATCACTGGGCAACCCACTGGGGTAG 1120
GCAATCAAAGCCAGCCACCCCCACCCCCACACACTCGGTGT 1160
CCCTTTTCATCCCTGGGCGCTGTGTCAATCCAGCCCTGGCCAT 1200
ACCCCTCAACCTCAGTGGGCTGTAAATGACAGTGGGCGCTG 1240
TAGCAGTGGCACAATAAACTCAGMTGYGTTCACAGAAA 1278

FIG. 20B

hsFATP5 protein sequence

EGQHCAIVQLLLGALRGPGCKDCACTLRMLSPFELVQFDM 40
EAAEPVRINQGFCLFVGLGEPGLLLTKVVSQQPFVGYRCP 80
RELSEKLVNRNVRQSGDVYNTGDLAMDREGLYFRDRL 120
GDTFRWKGENVSTHEVEGVLSQLVDFLQQVNVYGVCFPGCE 160
CKVGMAAVALAPGQTFDGEKLYQHVRWLPAVATPHFIR 199

FIG. 21

hsFATP6 DNA sequence

CGCTTGTGTGTTAAACAACAATTTTCAGCAAGCCAGTTT 40
TGCAGTCACTGCAACAAGTATGATGTCACTGTGTTCAGT 80
ATATTGCAGAACTTTGTGCTACCTTTTGCAACAATCTAA 120
CAGCAGAGGCAGAAAAGCATCATAAGGTCGGTTTGGCAATT 160
GCAATGGCATAAGCAGTATGTATGCAGACAATTTTATAG 200
ACAGATTTCGCAATATAAAGGTGTGTCACTTTATGCAGC 240
TACCGAATCAAGCATATCTTTTCATCAACTACACTGGCACA 280
ATTGGAGCAATTGGCAGACAATAATTGTGTTTACAAACTTC 320
TTTCCACTTTTTCACTTAATAAAGTATCACTTTTCAAAACA 360
TCAACCCATCACAATGAGCAGGGTTGGGTATTCATCACA 400
AAAAGCAGAACCTGGCACTTCTCATTTTCTCGAGTCAATGCAA 440
AAAATCCCTTCTTTTGGCTATGCTGGGCGCTTATAAGCACAC 480
AAAAGACAAATTGCTTTGTGCTGTGTTTTTAACAAGGCAT 520
GTTTACCTTAATACTGGCAGACTTAATAGTCCAGGATCAGG 560
ACAATTTCCTTTTATTTTGGCAACGTACTGCAGACACTTT 600
CAGATGCAAGGACAATAATGTGCGCAACCACTCAGGTTCCT 640
CATGTTATTCGAATGTTGCAATTCATACAGCAAGCAAAAG 680
TCTATGGCTGTGGCTATATCAGGTTATCAAGTACAGCAGG 720

FIG. 22A



AATGGCTTCTATTATTTTAAAACCAAATACATCTTTACAT 760
TTGGCAAAAAGTTTATCAACAAGTTGTAAACATTTCCTACCAG 800
CTTATGCTTGTGTCACGATTTTTTAACAATTTCAGCAAAAAAT 840
GCAAGCAACAGCAACATTCAAACTATTCAAGCATCAGTTG 880
GTGGAAGATGCAATTTAATCCACTGAAAATTTCTGAACCAC 920
TTTACITTCATGCGATAACTTCAAAAAGTCTTATGTTCTACT 960
GACCAGGCAACTTTATCATCAATAATGTTAGGGCAATA 1000
AAACTTTAAGATTTTTTATATCTAGCAACTTTCATATGCTTT 1040
CTTAGCAACAGTGCAGCGGGGGTATATCATTTCTTTATCAA 1080
ATGGGCAAGGGAGCTAACATTAAATTATGCATGTACTATA 1120
TTTCCTTAATATGACAGATAATTTTTTAAATTGCATAACAA 1160
TTTTAATTTCTTTTAAATTGCATATAAACACAGTTTATTATT 1200
CTTTTTATCTATTTGGAGATTTCAGTGCATAACTAAGTATT 1240
TTCCCTAATACTAAAGATTTTTTAAATAATAAATAGTGGCTA 1280
GCGGTTTGCACAATCACTAAAAATGTACTTTCTAATAAGT 1320
AAAATTTCTAATTTTGAATAAAACATTAAATTTTACTCAA 1360
A 1361

FIG. 22B

hsFATP6 protein sequence

ACVLKKKFSASQFWSDCCKYDVIVFQYIGELCRYLCKQSKREGEKDHKVR 50
LAINGIRSDWREFLDRFGNIKVCHELYAATESLSFMNYTGRIGATGRT 100
NLFYKLLSTFDLLIKYDFQKDEPMRNEQGWFMRKRRPCELLSRVNAKNPF 150
FGYAGPYKHKKDKLLCIVFKKEDVYINTGDLIVQDQINFLYFWDRTGDTF 200
RWKGENVATTEVADVIGMLDFTIQEANVYGVAISGYEGRAGMASITLKENT 250
SLDLEKVVEQVVFELPAYACPRFLRIQEKMEATGTFKLLKHOLVEDGFNP 300
LKISEPLVFMDNLKKSIVLLIRELYDQIMLGELKL 335

FIG. 23

mtFATP DNA sequence

TAGTCGATAACGTCAAGCAAGCTCTGCGGGCGCTGCGCACC 40
TTCCCTCAGGTTCGGTCCCAAGCAATTCCACATTTCCGCAA 80
CCATTCGAGGCTTACGTGTCCGATTACTACGGCGGGCGCA 120
CACACAACGGTTCAGGCTCATCGAAGCTGGCAACTCGGATGC 160
CGCGAGTGTTCGGCGCACAGCGCGGTGATTGTGCGGTGGGGC 200
AATCAACGGGCTGCTGGCGCGCGCGCAATTCCAGGGCTCG 240
ATCGGCACGGTGTTCAGCAAGCGGGCGCGCTCGGCTACGGTG 280
AOCAGTCTTCTCAAAATTCCGGCATCAGCAGCTCACTA 320
CCGCGACGGCTAACGGCACCGGCCAACCGGTACGGCGGGGTG 360

FIG. 24A

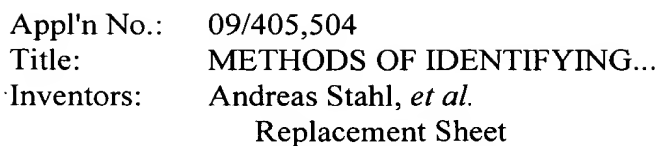


Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mtFATP protein sequence

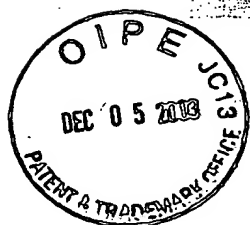
msdyyggahttvrlidlatmpvrladtpvivrgamtgll 40
arpnskasigtvfgqraarygdrvfllkfgdqqltyrdana 80
tanryaavlaargvgpgdvvgimlmspstvlamlatvkc 120
gaiagmlnyhorgevlahslgllldakvliaesdlvsavae 160
cgasrgrvagövl tvedverfattapatnpasasavqakd 200
tafiyiftsgttgfpkasvmthhrwlralavfgmgllrlkg 240
sdtlyscplyhnmaltvavssvinsgatllalgksfsasr 280
fwdevianratafvyigeicryllnqpakotdrahqvrvi 320
ognglrpeiwdelttrfgvarvcefyaaasegnsafinifn 360
vprttagvsqmplafveydltdgdlrdasgrvrrvpdger 400
glllsrvnrllqpfögytdpvasekkdvmafrögdöwint 440
gövmsspögmghaafvörlgdtfrwkgenvattgveaalas 480
dötvveectvygvqiprtggragmaaitlragaeöfdöqala 520
rtvyghlpgyalplfvrvgslahtttfksrkvelmqay 560
gadiedplyvlagpdegyvpyyaeypeevslgmrpog 597

FIG. 25



1	tcg acc cac ggc gtc cgg gac ccc aaa gca gaa gcc cgc aca gta ggc aca gcg cac cca	
61	aga agg gtc cag gag tct gca gaa aca gaa agg tcc ccg gcc tca gcc tcc tag tcc ctg	
121	cct gcc tcc tgc ctg agc ttc tgg gag act gaa ggc acg gct tgc age ttc agg atg cgg	
181	gct ccg ggt gcg ggc gcg gcc tcg gtc gtg gtc tcg ctg gcg ctg ttg ttg ctg ggg ctg	M R
241	ccg tgg acc tgg agc gcg gca gcg gtc ggc gtg tac gtg ggc agc ggc ggc tgg cgc	
301	P W T W S A A A A L G V Y V G S G G W R	
361	ttc ctg cgc atc gtc tgc aag acc gcg agg cga gac ctc ttc ggt ctc tct gtg ctg atc	
421	F L R I V C K T A R R D L F G L S V L I	
481	cgc gtg cgc ctg gag ctg cgg cag cgt gcc ggc cac acc atc ccg cgc atc ttc	
541	R V R L E L R R H Q R A G H T I P R I F	
601	cag gcg gta gtg cag cga cag ccc gag cgc ctg gcg ctg gat gcc ggc acc ggc gag	
	Q A V V Q R Q P E R L A L V D A G T G E	
	tgc tgg acc ttt gcg cag ctg gac gcc tac tcc aat gcg gta gcc aac ctc ttc cgc cag	
	C W T F A Q L D A Y S N A V A N L F R Q	
	ctg ggc ttc gcg ccg ggc gac gtg gtc gcc atc ttc ctg gag ggc ccg gag ttc gtg	
	L G F A P G D V V A I F L E G R P E F V	
	ggg ctg tgg ggc ctg gcc aag gcg ggc atg gag gcc gcg ctg ctc aac gtg aac ctg	
	G L W L G L A K A G M E A A L L N V N L	

FIG. 26A



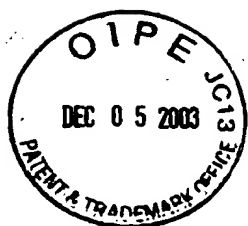
661 cgg cgc gag ccc ctg gcc ttc tgc ctg ggc acc tgc ggc gct aag gcc ctg atc ttt gga
R R E P L A F C L G T S G A K A L I F G
721 gga gaa atg gtg gcg gct gcc gaa gtg agc ggg cat ctg ggg aaa agt ttg atc aag
G E M V A A V A E V S G H L G K S L I K
781 ttc tgc tct gga gac ttg ggg ccc gag ggc atc ttg ccg gac acc cac ctg gac ccg
F C S G D L G P E G I L P D T H L L D P
841 ctg ctg aag gag gcc tct act gcc ccc ttg gca cag atc ccc agc aag gcc atg gac gat
L L K E A S T A P L A Q I P S K G M D D
901 cgt ctt ttc tac atc tac acg tgc ggg acc acc ggg ctg ccc aag gct gcc att gtc gtg
R L F Y I Y T S G T T G L P K A A I V V
961 cac agc agg tac tac cgc atg gca gcc ttc ggc cac ccc tac cgc atg cag gcg gct
H S R Y Y R M A A F G H A Y R M Q A A
1021 gac gtg ctc tat gac tgc ctg ccc ctg tac cac tgc gca gga aac atc atc ggc gtg ggg
D V L Y D C L P L Y H S A G N I I G V G
1081 cag tgt ctc atc tat ggg ctg aca gtc gtc ctc cgc aag aaa ttc tgc gcc agc cgc ttc
Q C L I Y G L T V V L R K K F S A S R F
1141 tgg gac gac tgc atc aag tac aac tgc acg gtg gtt cag tac atc ggg gag atc tgc cgc
W D D C I K Y N C T V V Q Y I G E I C R
1201 tac ctg ctg aag cag ccg gtg cgc gag gcg gag agg cga cac cgc gtg cgc ctg gcg gtg
Y L L K Q P V R E A E R R H R V R L A V

FIG. 26B



1261 ggg aac ggg ctg cgt cct gcc atc tgg gag gag ttc acg gag cgc ttc ggc gta cgc caa
G N G L R P A I W E E F T E R F G V R Q
1321 atc ggg gag ttc tac ggc gcc acc gag tgc aac tgc agc att gcc aac atg gac ggc aag
I G E F Y G A T E C N C S I A N M D G K
1381 gtc ggc tcc tgt ggt ttc aac agc cgc atc ctg ccc cac gtg tac ccc, atc cgg ctg gtg
V G S C G F N S R I L P H V Y P I R L V
1441 aag gtc aat gag gac aca atg gag ctg ctg ggt gag atc aac caa gag cgc ctc tgc atc ccc tgc
K V N E D T M E L L R D A Q G L C I P C
1501 cag gcc ggg gag cct ggc ctc ctg ggt gag atc aac caa gag cgc cgc ctg cgc cgc
Q A G E P G L L V G Q I N Q Q D P L R R
1561 ttc gat ggc tat gtc agc gag gcc acc agc aag atc gcc cac agc gtc ttc agc
F D G Y V S E S A T S K K I A H S V F S
1621 aag ggc gac agc gcc tac ctc tca ggt gac gtg cta gtg atg gat gag ctg ggc tac atg
K G D S A Y L S G D V L V M D E L G Y M
1681 tac ttc cgg gac cgt agc ggg gac acc ttc cgc tgg cga ggg gag aac gtc tcc acc acc
Y F R D R S G D T F R W R G E N V S T T
1741 gag gtg gag ggc gtg agc cgc ctg ctg ggc cag aca gac gtg gcc gtc tat ggg gtg
E V E G V L S R L L G Q T D V A V Y G V
1801 gct gtt cca gga gtg gag ggt aag gca ggg atg gcg gcc gtc gca gac ccc cac agc ctg
A V P G V E G K A G M A A V A D P H S L
1861 ctg gac ccc aac gcg ata tac cag gag ctg cag aag gtg gca ccc tat gcc cgg ccc
L D P N A I Y Q E L Q K V L A P Y A R P

FIG. 26C



1921 atc ttc ctg cgc ctg ccc cag gtg gac acc aca ggc acc ttc aag atc cag aag acg
I F L R L L P Q V D T T G T F K I Q K T
1981 agg ctg cag cga gag ggc ttt gac cca cgc cag acc tca gac cgg ctc ttc ttc ctg gac
R L Q R R E G F D P R Q T S D R L F L D
2041 ctg aag cag ggc cac tac ctg ccc tta aat gag gca gtc tac act cgc atc tgc tgc ggc
L K Q G H Y L P L N E A V Y T R I C S G
2101 gcc ttc gcc ctg tga agc tgt tcc tct act ggc cac aaa ctg tgg gcc tgg gag agg
A F A L *
2161 cca gct tga gcc aga cag cgc tgc cca ggg gtg gcc ggc tag tac aca ccc acc tgg ccg
2221 agc tgt acc tgg cac ggc cca tcc tgg act gag aaa ctg gaa cct cag agg aac ccg tgc
2281 ctc tct gct gcc ttg gtg ccc ctg tgt ctg cct cct ctc cct gct ttt cag cct ctg tct
2341 cct tcc atc cct gtc cct gtc tgg cct taa ctg ttc cct ctc ttt ttt ttt tct
2401 ttc ttt ttt aag ata gag tct cac tct gct gcc cgg gct aga gtg cag tgg tgg gat
2461 ctc ggc tca ctg caa cct ctg cct cct ggg gtt caa gtg atc ctg cca cct cag cct cct

FIG. 26D



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

2521 gag tag ctg gga tta cag gca ccc gcc acc acg tcc agc taa ttt tta tat ttt tag tag
2581 aga cgg ggt ttc acc atg ttg gtc agg ctg gtc ttg aac tcc tga cct cag gtg atc cgc
2641 tgg cct cgg cct ccc aga gtg ctg gga tta tag gcg tga gcc tct ggc ccg gcc ttt cct
2701 ttt tcc tct cct ctc ctg ccg aga gtg gaa cac acg tgt cct ggg agc tgc atc ttg tgt
2761 agg gtc cag ctg ctt ttg ggg act gca gga atc tcc cct ggg ccc tgg act cgg act
2821 ggg gcc tcc cca cct ccc ctg cgg ctg tgc ctt acg gag ccc caa tcc agg cct cct gtg
2881 gct gtt ggg ttc cag atg ctg cag ctg cat gtg act tcc aag cag gcc ctc cgc cct ccc
2941 tgc tga atg gag gag ccg ggg gtc ccc cag gcc aac tgg aaa atc tcc cag gct agg cca
3001 att gcc ttt tgc act tcc cgg ttc ctg tca cat ttc ccc agc ccc acc ttc ccc tcc tga
3061 tgc cct gaa agc ttc cgg aat tga ctg tga cca ctt gga tgt cac cac tgt cag ccc ctg
3121 cct tga tgt ccc cat tta gcc atc tcc atg gag ctg ctg gga ggc cct gaa ccc tgc
3181 act gcg tgg ctg ccc agc cag ctg cct cct gtc ctg gga ggc ctc ctg ggt gtc ctc
3241 atc tgg tgt gtc tac tgg agg gtc cca cag gag agg cag agg ggt cag ggg agg tct
3301 cct gcc ggg ggt tgg cct ctc aag cct cag gag ttc tag cct gtt gaa tat acc cca cct
3361 ggt ggg tgg ccc ctc cga tgt ccc cac tga tgg ctc tga cac cgt gtt ggt ggc gat gtc
3421 cca gac aat ccc acc agg acg gcc cag aca tcc cta ctg gct tgg ctg gct cat ctc
3481 gaa cat cca cgc cag cct ttc tgg ggc cca ccc agg ccg cct gtc cgt ctg tcc tcc
3541 ctc cag cag cac ccc ctg gcc cct gga gtg ggc cca tgg caa gag aca ccg tgg cgt
3601 ctc atg tga act ttc ctg ggc act gtg gtt tta ttt cct aat tga ttt aag aaa taa acc
3661 tga aga ccg tct ggt gaa aaa aaa agg gcc gc

FIG. 26E

hsFATP4

1 cga ccc acg cgt ccg ggc ggc cgg ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc
 61 cca tgc agg gcg cag agc cgg cta aac cct gct gct gct gct gct gct gct gct gct gct gct gct gct
 121 ggc taa tgc ccc tca cgc tgc tgc tgc tgc tgc tgc tgc tgc tgc tgc tgc tgc tgc tgc tgc tgc
 181 gcg cgg cgg agc cga cgc cgc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc
 241 ctg ttc tcc aag ctg ctg gtg ctg aaa ctg ccc tgg acc cag gtg gga ttc tcc ctg ttc ttc ttc
 301 L F S K L V L L K L P W T Q V G F S L L F
 ctg tac ttg gga tct ggc ggc tgg cgc ttc atc cgg gtc ttc atc aag acc atc aag acc cgc
 361 L Y L G S G G W R F I R V F I K T I R R
 gat atc ttt ggc ggc ctg gtc ctg aag gtg aag gca aag gtg cga cag tgc ctg cag
 421 D I F G G L V L L K V K A K V R Q C L Q
 gag cgg cga aca gtg ccc att ttg ttc gcc tct acc gtt cgg cgc cac ccc gac aag acg
 481 E R R T V P I L F A S T V R R H P D K T
 gcc ctg atc ttc gag ggc aca gat acc cac tgg acc ttc cgc cag ctg gat gag tac tca
 541 A L I F E G T D T H W T F R Q L D E Y S
 agc agt gta gcc aac ttc ctg cag gcc cgg ggc ctg gcc tgg ggc gat gtg gct gcc atc
 601 S S V A N F L Q A R G L A S G D V A A I
 ttc atg gag aac cgc aat gag ttc gtg ggc cta tgg ctg ggc atg gcc aag atc ggt gtg
 F M E N R N E F V G L W L G M A K L G V

FIG. 27A





661 gag gca gcc ctc atc aac acc aac ctg cgg gat gct ctg ctc cac tgc ctc acc acc
E A A L I N T N L R R D A L L H C L T T
721 tcg cgc gca cgg gcc ctt gtc ttt ggc agc gaa atg gcc tca gcc atc tgt gag gtc cat
S R A R A L V F G S E M A S A I C E V H
781 gcc agc ctg gac ccc tcg ctc agc ctc ttc tgc tct ggc tcc tgg gag ccc ggt gcg gtg
A S L D P S L S L F C S G S W E P G A V
841 cct cca agc aca gaa cac ctg gac cct ctg ctg aaa gat gct ccc aag cac ctt ccc agt
P P S T E H L D P L L K D A P K H L P S
901 tgc cct gac aag gcc bttc aca gat aaa ctg ttc tac atc tac aca tcc ggc acc aca ggg
C P D K G F T D K L F Y I Y T S G T T G
961 ctg ccc aag gcc atc gtg gtg cac agc agc agg tat tac cgc atg gct gcc ctg gtg tac
L P K A A I V V H S R Y Y R M A A L V Y
1021 tat gga ttc cgc atg cgg gcc ccc aac gac atc gtc tat gac tgc ctc ccc ctc tac cac tca
Y G F R M R P N D I V Y D C L P L Y H S
1081 gca gga aac atc gtg gga atc ggc cag tgc ctg ctg cat ggc atg acg gtg att cgg
A G N I V G I G Q C L L H G M T V I R
1141 aag aag ttc tca gcc tcc cgg ttc tgg gac gat tgt atc aag tac aac tgc acg att gtg
K K F S A S R F W D C I K Y N C T I V
1201 cag tac att ggt gaa ctg tgc cgc tac ctc ctg aac cag cca ccg cgg gag gca gaa aac
Q Y I G E L C R Y L L N Q P P R E A E N

FIG. 27B



1261 cag cac cag gtt cgc atg gca cta ggc aat ggc ctc cgc cag tcc atc tgg acc aac ttt
Q H Q V R M A L G N G L R Q S I W T N F
1321 tcc agc cgc ttc cac ata ccc cag gtg gct gag ttc tac ggg gcc aca gag tgc aac tgt
S S R F H I P Q V A E F Y G A T E C N C
1381 agc ctg ggc aac ttc gac agc cag gtg ggc tgt ggt ttc aat agc cgc atc ctg tcc
S L G N F D S Q V G A C G F N S R I L S
1441 ttc gtg tac ccc atc cgg ttg gta cgt gtc aac gag gac acc atg gag ctg atc cgg ggg
F V Y P I R L V R V N E D T M E L I R G
1501 ccc gac ggc gtc tgc att ccc tgc cag cca ggt gag ccg ggc cag ctg gtg gcc cgc atc
P D G V C I P C Q P G E P G Q L V G R I
1561 atc cag aaa gac ccc ctg cgc cgc ttc gat ggc tac ctc aac cag ggc gcc aac aac aag
I Q K D P L R R F D G Y L N Q G A N N K
1621. aag att gcc aag gat gtc ttc aag aag ggc gac cag gcc tac ctt act ggt gat gtg ctg
K I A K D V F K K G D Q A Y L T G D V L
1681 gtg atg gac gag ctg ggc tac ctg tac ttc cga gac cgc act ggg gac acg ttc cgc tgg
V M D E L G Y L Y F R D R T G D T F R W
1741 aaa ggt gag aac gtg tcc acc acc gag gtg gaa ggc aca ctc agc cgc ctg ctg gac atg
K G E N V S T T E V E G T L S R L L D M
1801 gct gac gtg gcc gtg tat ggt gtc gag gtg cca gga acc gag ggc gcc gga atg gct
A D V A V Y G V E V P G T E G R A G M A
1861 gct gtg gcc agc ccc act ggc aac tgt gac ctg gag cgc ttt gct cag gtc ttg gag aag
A V A S P T G N C D L E R F A Q V L E K

FIG. 27C



Appl'n No.:

09/405,504

Title:

METHODS OF IDENTIFYING...

Inventors:

Andreas Stahl, *et al.*

Replacement Sheet

1921 gaa ctg ccc ctg tat gcg cgc ccc atc ttc ctg cgc ctg cct gag ctg cac aaa aca
E L P L Y A R P I F L L R L L P E L H K T

1981 gga acc tac aag ttc cag aag aca gag cta cgg aag gag ggc ttt gac ccg gct att gtg
G T Y K F Q K T E L R K E G F D P A I V

2041 aaa gac ccg ctg ttc tat. gat gcc cag aag ggc cgc tac gtc ccg ctg gac caa gag
K D P L F Y L D A Q K G R Y V P L D Q E

2101 gcc tac agc cgc atc cag gca ggc gag gag aag ctg tga ttc ccc cca tcc ctg tga ggg
A Y S R I Q A G E E K L *

2161 ccg gcg gat gct gga tcc gga gcc cca ggt tcc gcc cca gag cgg tcc tgg aca agg cca
2221 gac caa agc aag cag ggc ctg gca cct cca tcc tga ggt gct gcc cct cca tcc aaa act
2281 gcc aag tga ctg att gcc ttc cca acc ctt cca gag gct ttc tgt gaa agt ctg atg tcc
2341 aag ttc cgt ctt ctg ggc tgg gca gcc cct ctg gtt ccc agg ctg aga ctg acg ggt ttt
2401 ctg agg atg atg tct tgg gtg agg gta ggg aga gga caa ggc gtc acc gag ccc ttc cca
2461 gag agc agg gag ctt ata aat gga acc aga gca gaa gtc ccc aga ctg agg aag tca aca
2521 gag tgg gca ggg aca gtg gta gca tcc atc tgg tgg cca aag aga atc gta gcc cca gag
2581 ctg ccc aag ttc act ggg ctg ccc cac ccc gag gag ggg agg aga gga cct gac atc
2641 tgt agg tgg ccc ctg atg ccc cat cta cag gag gtc agg acc acg ccc ctg gcc tct
2701 ccc cac tcc ccc atc ctg cct ggg tgg ctg cct gat tat ccc tca ggc agg gcc tct
2761 cag tcc ttg tgg gtc tgt gtc acc tcc atc tca gtc ttg gcc tgg cta tga ggg gag gag
2821 gaa tgg gag agg ggg ctg agg ggc caa taa act ctg cct tga gtc ctg cta aaa aaa
2881 aaa aaa aag aaa aaa aaa ggc cca ggg ccg c

FIG. 27D



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

Protein sequence 646 a.a. MRAPGAGAASVV... VYTRICSGAFAL

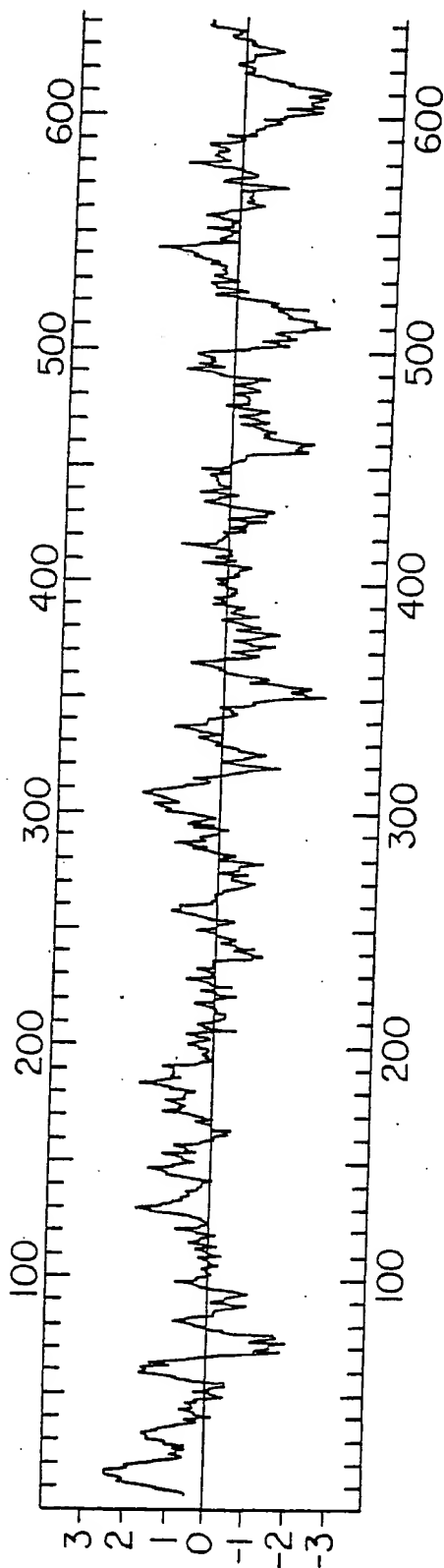


FIG. 28A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

Protein Sequence 646 a.a. MRAPGAGAASVV....VYTRICSGAFAL
646 Amino Acids MW: 71062 Dalton

		<u>n</u>	<u>n%</u>	<u>MW</u>	<u>MW%</u>
A ala	Alanine	64	9.9	4546	6.4
C cys	cysteine	15	2.3	1545	2.2
D asp	aspartic acid	30	4.6	3450	4.9
E glu	glutamic acid	31	4.8	4000	5.6
F phe	phenylalanine	29	4.5	4264	6.0
G gly	glycine	63	9.8	3592	5.1
H his	histidine	13	2.0	1781	2.5
I ile	isoleucine	29	4.5	3279	4.6
K lys	lysine	22	3.4	2818	4.0
L leu	leucine	77	11.9	8707	12.3
M met	methionine	11	1.7	1441	2.0
N asn	asparagine	15	2.3	1710	2.4
P pro	proline	29	4.5	2814	4.0
Q gln	glutamine	25	3.9	3201	4.5
R arg	arginine	49	7.6	7648	10.8
S ser	serine	33	5.1	2872	4.0
T thr	threonine	27	4.2	2728	3.8
V val	valine	51	7.9	5052	7.1
W trp	tryptophan	9	1.4	1674	2.4
X ukw	unknown	--	--		
Y tyr	tyrosine	24	3.7	3913	5.5
Z ---	STOP				

FIG. 28B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP1 full-length protein

Hydrophilicity Plot - Kyte-Doolittle

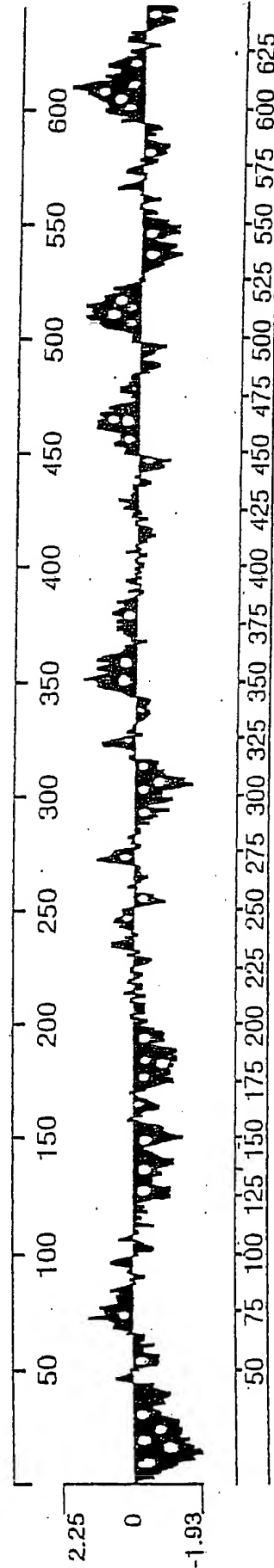


FIG. 28C



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP4.pep -> KD Hydrophobicity <11/1>

Protein sequence 643 a.a. MLLGASLVGVLL ... AYSRIQAGEEKL

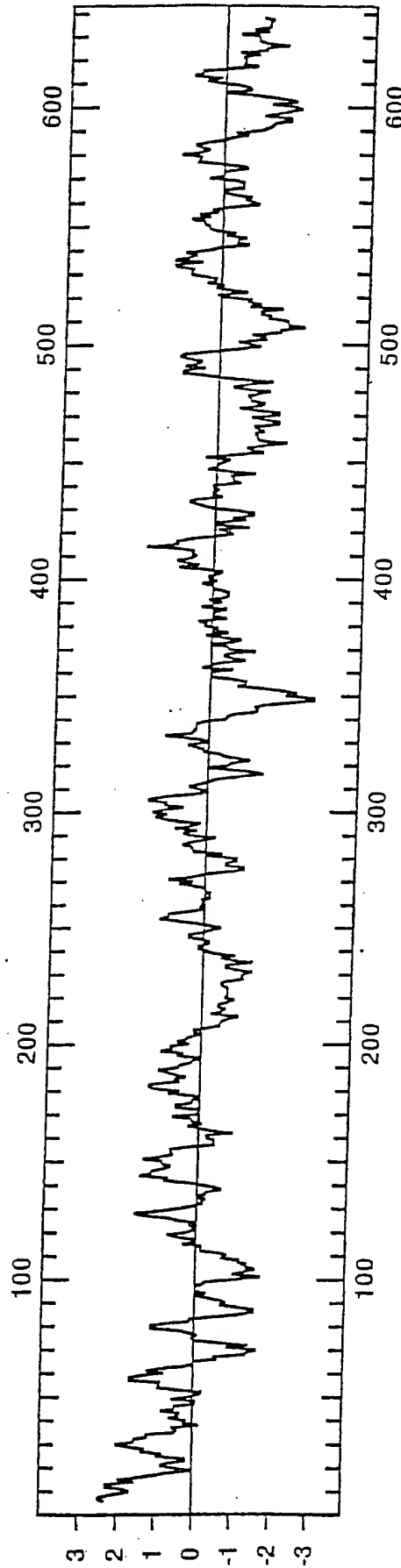


FIG. 29A



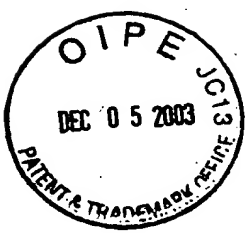
Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hs FATP4. pep-> A.A. Usage

Protein Sequence 643 a.a. MLLGASLVGVLL...AYSRIQAGEEKL
643 Amino Acids MW: 72018 Dalton

		<u>n</u>	<u>n%</u>	<u>MW</u>	<u>MW%</u>
A ala	alanine	46	7.2	3267	4.5
C cys	cysteine	16	2.5	1648	2.3
D asp	aspartic acid	33	5.1	3795	5.3
E glu	glutamic acid	33	5.1	4258	5.9
F phe	phenylalanine	34	5.3	5000	6.9
G gly	glycine	54	8.4	3079	4.3
H his	histidine	12	1.9	1644	2.3
I ile	isoleucine	30	4.7	3392	4.7
K lys	lysine	31	4.8	3970	5.5
L leu	leucine	76	11.8	8594	11.9
M met	methionine	12	1.9	1572	2.2
N asn	asparagine	21	3.3	2394	3.3
P pro	proline	31	4.8	3008	4.2
Q gln	glutamine	23	3.6	2945	4.1
R arg	arginine	45	7.0	7024	9.8
S ser	serine	35	5.4	3046	4.2
T thr	threonine	32	5.0	3233	4.5
V val	valine	46	7.2	4557	6.3
W trp	tryptophan	8	1.2	1488	2.1
X ukw	unknown	--	--		
Y tyr	tyrosine	25	3.9	4076	5.7
Z ---	STOP				

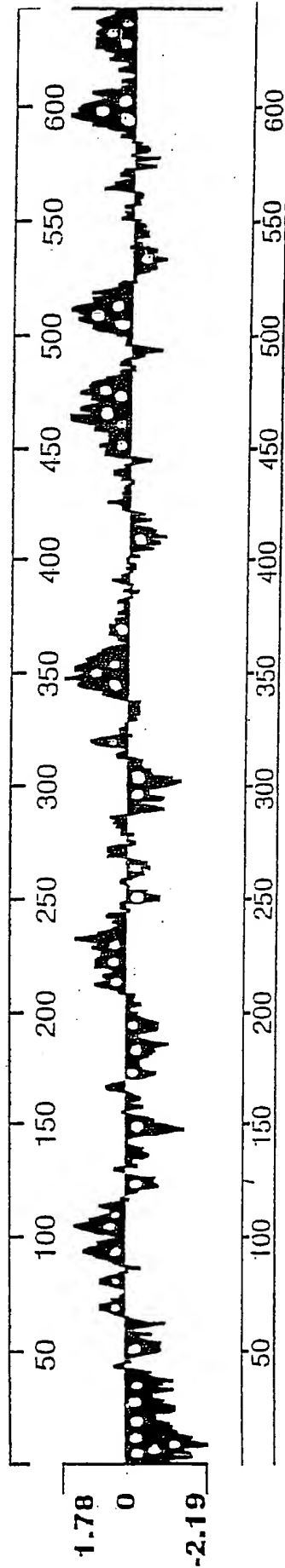
FIG. 29B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP4 full length protein

Fig. Hydrophobicity Plot - Kyte - Doolittle





1	A T G C G G G C T C C	G G G T G C G G G	hFATP1con.seq ORF
1	A T G C G G G C T C C	T G G A G C A G G	mFATP1.seq ORF (from genomic)
21	C G C G G C C T C	G G T G G T C T C G C	hFATP1con.seq ORF
21	A A C A G C C T C	T G T G G C C T C A C	mFATP1.seq ORF (from genomic)
41	T G G C G C T G	T T G T G G C T G C T G	hFATP1con.seq ORF
41	T G G C G C T G	C T T T G G T T T C T G	mFATP1.seq ORF (from genomic)
61	G G G C T G	C C G T G G A C C T G G A G	hFATP1con.seq ORF
61	G G A C T T	C C G T G G A C C T G G A G	mFATP1.seq ORF (from genomic)
81	C G C G G C	A G C G G C G C T C G G C G	hFATP1con.seq ORF
81	C G C G G C	G G C G G C G T T C T G T G	mFATP1.seq ORF (from genomic)
101	T G T A C G T G G G	C A G C G G C G G C	hFATP1con.seq ORF
101	T G T A C G T G G G	T G G C G G C G G C	mFATP1.seq ORF (from genomic)
121	T G G C G C T T	C C T G C G C A T C G T	hFATP1con.seq ORF
121	T G G C G C T T	T C T G C G T A T C G T	mFATP1.seq ORF (from genomic)
141	C T G C A A G A C	C G C G A G G C G A G	hFATP1con.seq ORF
141	C T G C A A G A C	G G C G A G G C G A G	mFATP1.seq ORF (from genomic)
161	A C C T C T T	C G G T C T C T C T G T	hFATP1con.seq ORF
161	A C C T C T T	T G G C C T C T C T G T	mFATP1.seq ORF (from genomic)
181	C T G A T	C C G C G T G C G C C T G G A	hFATP1con.seq ORF
181	C T G A T	T C G T G T C G G C T A G A	mFATP1.seq ORF (from genomic)
201	G C T G C G	G C G G C A C C A G C G T G	hFATP1con.seq ORF
201	G C T G C G	A C G A C A C C G G C G A G	mFATP1.seq ORF (from genomic)
221	C C G G C C	A C A C C A T C C C G C G C	hFATP1con.seq ORF
221	C A G G A G	A C A C G A T C C C G T G C	mFATP1.seq ORF (from genomic)
241	A T C T T	T C A G G C G G T A G T G C A	hFATP1con.seq ORF
241	A T C T T	C C A G G C T G T G G C C C G	mFATP1.seq ORF (from genomic)
261	G C G A C A	G C C C G A G C G C C T G G	hFATP1con.seq ORF
261	G C G A C A	A C C A G A G C G C C T G G	mFATP1.seq ORF (from genomic)
281	C G C T G G T G G A	T G C C G G G A C C	hFATP1con.seq ORF
281	C A C T G G T G G A	C G C C A G T A G T	mFATP1.seq ORF (from genomic)
301	G G C G A G	T G C T G G A C C T T T G C	hFATP1con.seq ORF
301	G G T A T A	T G C T G G A C C T T C G C	mFATP1.seq ORF (from genomic)
321	G C A G C T G G A C	G C C T A C T C C A	hFATP1con.seq ORF
321	A C A G C T G G A C	A C C T A C T C C A	mFATP1.seq ORF (from genomic)
341	A T G C	G G T A G C C A A C C T C T T C	hFATP1con.seq ORF
341	A T G C	T G T A G C C A A C C T G T T C	mFATP1.seq ORF (from genomic)

FIG. 30A



361 C G C C A G C T G G G C T T C G C G C C hFATP1con.seq ORF
361 C G C C A G C T G G G C T T T G C A C C mFATP1.seq ORF (from genomic)

381 G G G C G A C G T G G T G G C C A T C T hFATP1con.seq ORF
381 A G G C G A T G T G G T G G C T G T G T mFATP1.seq ORF (from genomic)

401 T C C T G G A G G G C C G G C C G G A G hFATP1con.seq ORF
401 T C C T G G A G G G C C G G C C G G A G mFATP1.seq ORF (from genomic)

421 T T C G T G G G G C T G T G G C T G G G hFATP1con.seq ORF
421 T T C G T G G G G A C T G T G G C T G G G mFATP1.seq ORF (from genomic)

441 C C T G G C C A A G G C G G G C A T G G hFATP1con.seq ORF
441 C C T G G C C A A G G C C G G T G T G G mFATP1.seq ORF (from genomic)

461 A G G C C G C G C T G C T C A A C G T G hFATP1con.seq ORF
461 T G G C T G C T C T T C T C A A T G T C mFATP1.seq ORF (from genomic)

481 A A C C T G C G G C G C G A G C C C C T hFATP1con.seq ORF
481 A A C C T G A G G C G G G A G C C C C T mFATP1.seq ORF (from genomic)

501 G G C C T T C T G C C T G G G C A C C T hFATP1con.seq ORF
501 G G C C T T C T G C C T G G G C A C A T mFATP1.seq ORF (from genomic)

521 C G G G C G C T A A G G C C C T G A T C hFATP1con.seq ORF
521 C A G C T G C C A A G G C C C T C A T T mFATP1.seq ORF (from genomic)

541 T T T G G A G G A G A A A T G G T G G C hFATP1con.seq ORF
541 T A T G G C G G G G A G A T G G C A G C mFATP1.seq ORF (from genomic)

561 G G C G G T G G C C G A A G T G A G C G hFATP1con.seq ORF
561 G G C G G T G G C G G A G G T G A G C G mFATP1.seq ORF (from genomic)

581 G G C A T C T G G G G A A A A G T T T G hFATP1con.seq ORF
581 A G C A G C T G G G G A A G A G C C T C mFATP1.seq ORF (from genomic)

601 A T C A A G T T C T G C T C T G G A G A hFATP1con.seq ORF
601 C T C A A G T T C T G C T C T G G A G A mFATP1.seq ORF (from genomic)

621 C T T G G G G C C C G A G G G C A T C T hFATP1con.seq ORF
621 T C T G G G G C C T G A G A G C A T C C mFATP1.seq ORF (from genomic)

641 T G C C G G A C A C C C A C C T C C T G hFATP1con.seq ORF
641 T G C C T G A C A C G C A G C T C C T G mFATP1.seq ORF (from genomic)

661 G A C C C G C T G C T G A A G G A G G C hFATP1con.seq ORF
661 G A C C C C A T G C T T G C T G A G G C mFATP1.seq ORF (from genomic)

681 C T C T A C T G C C C C C T T G G C A C hFATP1con.seq ORF
681 G C C C A C C A C C C C C T G G C A C mFATP1.seq ORF (from genomic)

701 A G A T C C C C A G C A A G G G C A T G hFATP1con.seq ORF
701 A A G C C C C A G G C A A G G G C A T G mFATP1.seq ORF (from genomic)

FIG. 30B



721 G A C G A T C G T C T T T T C T A C A T hFATP1con.seq ORF
721 G A T G A T C G G C T G T T T T A C A T mFATP1.seq ORF (from genomic)

741 C T A C A C G T C G G G G A C C A C C G hFATP1con.seq ORF
741 C T A T A C T T C T G G G A C C A C C G mFATP1.seq ORF (from genomic)

761 G G C T G C C C A A G G C T G C C A T T hFATP1con.seq ORF
761 G G C T T C C T A A G G C T G C C A T T mFATP1.seq ORF (from genomic)

781 G T C G T G C A C A G C A G G T A C T A hFATP1con.seq ORF
781 G T G G T G C A C A G C A G G T A C T A mFATP1.seq ORF (from genomic)

801 C C G C A T G G C A G C C T T C G G C C hFATP1con.seq ORF
801 C C G C A T T G C T G C C T T T G G C C mFATP1.seq ORF (from genomic)

821 A C C A C G C C T A C C G C A T G C A G hFATP1con.seq ORF
821 A C C A T T C C T A C A G C A T G C G T mFATP1.seq ORF (from genomic)

841 G C G G C T G A C G T G C T C T A T G A hFATP1con.seq ORF
841 G C C G C C G A T G T G C T C T A T G A mFATP1.seq ORF (from genomic)

861 C T G C C T G C C C C C T G T A C C A C T hFATP1con.seq ORF
861 C T G C C T G C C A C T C T A C C A C T mFATP1.seq ORF (from genomic)

881 C G G C A G G A A A C A T C A T C G G C hFATP1con.seq ORF
881 C T G C A G G G A A A C A T C A T G G G T mFATP1.seq ORF (from genomic)

901 G T G G G G C A G T G T C T C A T C T A hFATP1con.seq ORF
901 G T G G G G C A G T G C G T C A T C T A mFATP1.seq ORF (from genomic)

921 T G G G C T G A C A G T C G T C C T C C hFATP1con.seq ORF
921 C G G G T T G A C G G T G G T A C T G C mFATP1.seq ORF (from genomic)

941 G C A A G A A A T T C T C G G C C A G C hFATP1con.seq ORF
941 G C A A G A A G T T C T C C G C C A G C mFATP1.seq ORF (from genomic)

961 C G C T T C T G G G A C G A C T G C A T hFATP1con.seq ORF
961 C G C T T C T G G G A T G A C T G T G T mFATP1.seq ORF (from genomic)

981 C A A G T A C A A C T G C A C G G T G G hFATP1con.seq ORF
981 C A A G T A C A A T T G C A C G G T A G mFATP1.seq ORF (from genomic)

1001 T T C A G T A C A T C G G G G A G A T C hFATP1con.seq ORF
1001 T G C A G T A C A T A G G T G A A A T C mFATP1.seq ORF (from genomic)

1021 T G C C G C T A C C T G C T G A A G C A hFATP1con.seq ORF
1021 T G C C G C T A C C T G C T G A G G C A mFATP1.seq ORF (from genomic)

1041 G C C G G T G C G C G A G G C G G A G A hFATP1con.seq ORF
1041 G C C G G T T C G C G A C G T G G A G C mFATP1.seq ORF (from genomic)

1061 G G C G A C A C C G C G T G C G C C T G hFATP1con.seq ORF
1061 A G C G A C A C C G C G T G C G C C T G mFATP1.seq ORF (from genomic)

FIG. 30C



1081 G C G G T G G G G G A A C G G G C T G C G hFATP1con.seq ORF
1081 G C C G T G G G G T A A T G G G C T G C G mFATP1.seq ORF (from genomic)

1101 T C C T G C C A T C T G G G A G G A G T hFATP1con.seq ORF
1101 G C C A G C C A T C T G G G A G G A G T mFATP1.seq ORF (from genomic)

1121 T C A C G G A G C G C T T C G G C G T A hFATP1con.seq ORF
1121 T C A C G C A G C G C T T C G G T G T G mFATP1.seq ORF (from genomic)

1141 C G C C A A A T C G G G G A G T T C T A hFATP1con.seq ORF
1141 C C A C A G A T C G G C G A G T T C T A mFATP1.seq ORF (from genomic)

1161 C G G C G C C A C C G A G T G C A A C T hFATP1con.seq ORF
1161 C G G C G C T A C C G A G T G C A A C T mFATP1.seq ORF (from genomic)

1181 G C A G C A T T G C C A A C A T G G A C hFATP1con.seq ORF
1181 G C A G C A T T G C C A A C A T G G A C mFATP1.seq ORF (from genomic)

1201 G G C A A G G T C G G C T C C T G T G G hFATP1con.seq ORF
1201 G G C A A G G T C G G C T C C T G C G G mFATP1.seq ORF (from genomic)

1221 T T T C A A C A G C C G C A T C C T G C hFATP1con.seq ORF
1221 C T T C A A C A G C C G T A T C C T C A mFATP1.seq ORF (from genomic)

1241 C C C A C G T G T A C C C C A T C C G G hFATP1con.seq ORF
1241 C G C A T G T G T A C C C C A T C C G T mFATP1.seq ORF (from genomic)

1261 C T G G T G A A G G T C A A T G A G G A hFATP1con.seq ORF
1261 C T G G T C A A G G T C A A T G A G G A mFATP1.seq ORF (from genomic)

1281 C A C A A T G G A G C T G C T G C G G G hFATP1con.seq ORF
1281 C A C G A T G G A G C C A C T G C G G G mFATP1.seq ORF (from genomic)

1301 A T G C C C A G G G C C T C T G C A T C hFATP1con.seq ORF
1301 A C T C C G A G G G C C T C T G C A T C mFATP1.seq ORF (from genomic)

1321 C C C T G C C A G G C C G G G G A G C C hFATP1con.seq ORF
1321 C C G T G C C A G C C C G G G G A A C C mFATP1.seq ORF (from genomic)

1341 T G G C C T C C T T G T G G G T C A G A hFATP1con.seq ORF
1341 C G G C C T T C T C G T G G G C C A G A mFATP1.seq ORF (from genomic)

1361 T C A A C C A A C A G G A C C C G C T G hFATP1con.seq ORF
1361 T C A A C C A G C A G G A C C C T C T G mFATP1.seq ORF (from genomic)

1381 C G C C G C T T C G A T G G C T A T G T hFATP1con.seq ORF
1381 C G G C G T T T C G A T G G T T A T G T mFATP1.seq ORF (from genomic)

1401 C A G C G A G A G C G C C A C C A G C A hFATP1con.seq ORF
1401 T A G T G A C A G T G C C A C C A A C A mFATP1.seq ORF (from genomic)

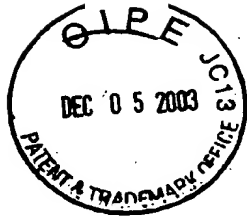
1421 A G A A G A T C G C C C A C A G C G T C hFATP1con.seq ORF
1421 A G A A G A T T G C C C A C A G C G T T mFATP1.seq ORF (from genomic)

FIG. 30D



1441	T T C A G C A A G G G C G A C A G C G C	hFATP1con.seq ORF
1441	T T C C G A A A G G G C G A T A G C G C	mFATP1.seq ORF (from genomic)
1461	C T A C C T C T C A G G T G A C G T G C	hFATP1con.seq ORF
1461	C T A C C T C T C A G G T G A C G T G C	mFATP1.seq ORF (from genomic)
1481	T A G T G A T G G A T G A G C T G G G C	hFATP1con.seq ORF
1481	T A G T G A T G G A C G A G C T G G G C	mFATP1.seq ORF (from genomic)
1501	T A C A T G T A C T T C C G G G A C C G	hFATP1con.seq ORF
1501	T A C A T G T A T T T C C G T G A C C G	mFATP1.seq ORF (from genomic)
1521	T A G C G G G G A C A C C T T C C G C T	hFATP1con.seq ORF
1521	C A G C G G G G A C A C C T T C C G C T	mFATP1.seq ORF (from genomic)
1541	G G C G A G G G G A G A A C G T C T C C	hFATP1con.seq ORF
1541	G G C G C G G G G A G A A C G T G T C C	mFATP1.seq ORF (from genomic)
1561	A C C A C C G A G G T G G A G G G C G T	hFATP1con.seq ORF
1561	A C C A C G G A G G T G G A A G C C G T	mFATP1.seq ORF (from genomic)
1581	G C T G A G C C G C C T G C T G G G C C	hFATP1con.seq ORF
1581	G C T G A G C C G C C T A C T G G G C C	mFATP1.seq ORF (from genomic)
1601	A G A C A G A C G T G G C C G T C T A T	hFATP1con.seq ORF
1601	A G A C G G A C G T G G C T G T G T A T	mFATP1.seq ORF (from genomic)
1621	G G G G T G G C T G T T C C A G G A G T	hFATP1con.seq ORF
1621	G G G G T G G C T G T G C C A G G A G T	mFATP1.seq ORF (from genomic)
1641	G G A G G G T A A G G C A G G G A T G G	hFATP1con.seq ORF
1641	G G A G G G G A A A G C T G G C A T G G	mFATP1.seq ORF (from genomic)
1661	C G G C C G T C G C A G A C C C C A C	hFATP1con.seq ORF
1661	C A G C C A T C G C A G A T C C C C A C	mFATP1.seq ORF (from genomic)
1681	A G C C T G C T G G A C C C C A A C G C	hFATP1con.seq ORF
1681	A G C C A G T T G G A C C C C T A A C T C	mFATP1.seq ORF (from genomic)
1701	G A T A T A C C A G G A G C T G C A G A	hFATP1con.seq ORF
1701	A A T G T A C C A G G A A T T A C A G A	mFATP1.seq ORF (from genomic)
1721	A G G T G C T G G C A C C C T A T G C C	hFATP1con.seq ORF
1721	A G G T T C T T G C A T C C T A T G C T	mFATP1.seq ORF (from genomic)
1741	C G G C C C A T C T T C C T G C G C C T	hFATP1con.seq ORF
1741	C G G C C C A T C T T C C T G C G C T C T	mFATP1.seq ORF (from genomic)
1761	C C T G C C C C A G G T G G A C A C C A	hFATP1con.seq ORF
1761	T C T G C C C C A G G T G G A T A C C A	mFATP1.seq ORF (from genomic)
1781	C A G G C A C C T T C A A G A T C C A G	hFATP1con.seq ORF
1781	C A G G C A C C T T C A A G A T C C A G	mFATP1.seq ORF (from genomic)

FIG. 30E



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1801 A A G A C G A G G C T G C A G C G A G A hFATP1con.seq ORF
1801 A A G A C C C G G C T G C A G C G T G A mFATP1.seq ORF (from genomic)

1821 G G G C T T T G A C C C A C G C C A G A hFATP1con.seq ORF
1821 A G G C T T T G A C C C C C G T C A G A mFATP1.seq ORF (from genomic)

1841 C C T C A G A C C G G C T C T T C T T C hFATP1con.seq ORF
1841 C C T C A G A C A G G C T C T T C T T T mFATP1.seq ORF (from genomic)

1861 C T G G A C C T G A A G C A G G G C C A hFATP1con.seq ORF
1861 C T A G A C C T G A A G C A G G G A C G mFATP1.seq ORF (from genomic)

1881 C T A C C T G C C C T T A A A T G A G G hFATP1con.seq ORF
1881 C T A T G T A C C C C T G G A T G A G A mFATP1.seq ORF (from genomic)

1901 C A G T C T A C A C T C G C A T C T G C hFATP1con.seq ORF
1901 G A G T C C A T G C C C G C A T T T G T mFATP1.seq ORF (from genomic)

1921 T C G G G C G C C T T C G C C C T C T G hFATP1con.seq ORF
1921 G C A G G C G A C T T C T C A C T C mFATP1.seq ORF (from genomic)

1941 A hFATP1con.seq ORF
1938 mFATP1.seq ORF (from genomic)

Decoration 'Decoration #2': Box residues that match the consensus
named 'Consensus #1' exactly.

FIG. 30F



Appl'n No.:
Title:
Inventors:

09/405,504
METHODS OF IDENTIFYING...
Andreas Stahl, *et al.*
Replacement Sheet

1	C	T	G	T	C	T	C	C	A	A	G	C	T	G	T	G	C	C	C	C	hsFATP4
1	C	T	T	G	G	G	T	C	C	A	A	G	C	T	A	G	T	G	C	T	mmFATP4
31	T	G	G	A	C	C	C	A	G	G	T	G	G	G	A	T	T	C	C	C	hsFATP4
31	T	G	G	A	C	C	C	A	G	G	T	G	G	G	A	T	T	C	C	C	mmFATP4
61	C	T	C	T	A	C	T	T	G	G	G	A	T	C	T	G	G	C	T	G	hsFATP4
61	C	T	G	T	A	C	T	T	G	G	G	T	C	T	G	G	T	G	G	C	mmFATP4
91	A	T	C	C	G	G	G	T	C	T	T	C	A	T	C	A	A	G	A	C	hsFATP4
91	A	T	C	C	G	G	G	T	C	T	T	C	A	T	C	A	A	G	A	C	mmFATP4
121	G	A	T	A	T	C	T	T	T	G	G	C	G	G	C	C	T	G	G	A	hsFATP4
121	G	A	T	A	T	C	T	T	T	G	G	T	G	G	C	A	T	G	G	T	mmFATP4
151	G	T	G	A	A	G	G	C	A	A	G	G	T	G	C	G	A	C	A	G	hsFATP4
151	G	T	G	A	A	G	A	C	C	A	A	G	G	T	G	C	G	A	C	G	mmFATP4
181	G	A	G	C	G	G	C	G	A	C	A	G	T	G	C	C	C	A	T	T	hsFATP4
181	G	A	G	C	G	G	A	A	G	A	C	G	T	G	C	C	C	C	T	G	mmFATP4

FIG. 31A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
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211	T	C	T	A	C	C	G	T	T	C	G	G	C	C	A	C	C	C	C	G	G	A	C	A	G	A	C	G	hsFATP4			
211	T	C	A	A	T	G	G	T	A	C	A	G	C	C	A	C	C	C	G	G	A	C	A	A	G	A	C	A	mmFATP4			
241	G	C	C	C	T	G	A	T	C	T	T	C	G	A	G	G	C	A	C	A	G	A	T	A	C	C	A	C	hsFATP4			
241	G	C	C	C	T	G	A	T	T	T	T	C	G	A	G	G	C	A	C	A	G	A	C	A	C	T	C	A	C	mmFATP4		
271	T	G	G	A	C	C	T	T	C	C	G	C	C	A	G	C	T	G	G	A	T	G	A	G	T	A	C	T	C	hsFATP4		
271	T	G	G	A	C	C	T	T	C	C	G	C	C	A	G	C	T	G	G	A	T	G	A	G	T	A	C	T	C	mmFATP4		
301	A	G	C	A	G	T	G	T	A	G	C	C	A	A	C	T	T	C	C	T	G	C	A	G	G	C	C	G	G	hsFATP4		
301	A	G	T	A	G	T	G	T	G	G	C	C	A	A	C	T	T	C	C	T	G	C	A	G	G	C	C	G	G	mmFATP4		
331	G	G	C	C	T	G	G	C	C	T	C	G	G	C	G	A	T	G	T	G	G	C	T	G	C	C	A	T	C	hsFATP4		
331	G	G	C	C	T	G	G	C	C	T	C	A	G	G	C	A	A	T	G	T	A	G	T	T	G	C	C	C	T	mmFATP4		
361	T	T	C	A	T	G	G	A	G	A	A	C	C	G	C	A	A	T	G	A	G	T	T	C	G	T	G	G	C	hsFATP4		
361	T	T	C	A	T	G	G	A	A	A	A	C	C	G	C	A	A	T	G	A	G	T	T	T	G	T	G	G	C	T	mmFATP4	
391	C	T	A	T	G	G	C	T	G	G	G	C	A	T	G	G	C	C	A	A	G	C	T	C	G	G	T	G	T	G	hsFATP4	
391	C	T	G	T	G	G	C	T	A	G	G	C	A	T	G	G	C	C	A	A	G	C	T	C	G	G	C	C	G	T	G	mmFATP4

FIG. 31B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

421	GAGGC	AGC	C	CTCA	TCAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC	CAAC
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FIG. 31C



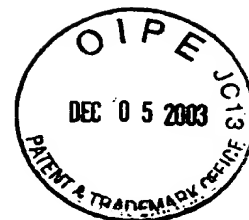
631	C	T	G	A	A	G	A	T	G	C	T	C	C	A	A	C	C	T	T	C	C	C	A	G	T	hsFATP4
631	C	T	G	A	A	G	A	T	G	C	C	C	C	A	A	C	C	T	G	C	C	C	A	G	T	mmFATP4
661	T	G	C	C	C	T	G	A	C	A	A	G	G	C	T	T	C	A	C	A	G	A	T	A	A	hsFATP4
661	C	A	C	C	C	A	G	A	C	A	A	G	G	T	T	T	T	A	C	A	G	A	T	A	A	mmFATP4
691	T	T	C	T	A	C	A	T	C	T	A	C	A	C	A	T	C	G	G	C	A	C	C	A	C	hsFATP4
691	T	T	C	T	A	C	A	T	C	T	A	C	A	C	A	T	C	G	G	C	A	C	C	A	C	mmFATP4
721	C	T	G	C	C	C	A	A	G	C	C	C	C	A	T	C	G	T	G	G	T	G	C	A	C	hsFATP4
721	C	T	A	C	C	C	A	A	A	G	C	T	G	C	C	A	T	G	T	G	G	T	G	C	A	mmFATP4
751	A	G	G	T	A	T	A	C	C	G	C	A	T	G	G	C	T	G	C	C	T	G	G	T	G	hsFATP4
751	A	G	G	T	A	T	A	T	C	G	T	A	T	G	G	C	T	G	C	C	T	G	G	T	G	mmFATP4
781	T	A	T	G	G	A	T	T	C	C	G	C	A	T	G	C	G	C	C	A	A	C	G	A	C	hsFATP4
781	T	A	T	G	G	A	T	T	C	C	G	C	A	T	G	C	G	C	C	T	G	A	T	G	A	mmFATP4
811	G	T	C	T	A	T	G	A	C	T	G	C	C	C	T	C	C	C	C	T	C	T	A	C	C	hsFATP4
811	G	T	C	T	A	T	G	A	C	T	G	C	C	C	T	C	C	C	C	T	C	T	A	C	C	mmFATP4

FIG. 31D



841	-	G	C	A	G	G	A	A	C	A	T	C	G	T	G	G	G	A	A	T	C	G	G	C	C	A	G	T	G	hsFATP4	
841	A	G	C	A	G	G	A	A	C	A	T	C	G	T	G	G	G	A	A	T	C	G	G	C	-	A	G	T	G	mmFATP4	
870	C	C	T	G	C	T	G	C	A	T	G	G	C	A	T	G	A	C	G	T	G	G	T	G	A	T	C	C	G	hsFATP4	
870	C	T	T	A	C	T	C	A	C	G	G	C	A	T	G	A	C	T	G	T	G	G	T	G	A	T	C	C	G	mmFATP4	
900	G	A	A	G	A	G	T	T	C	T	C	A	G	C	C	T	C	C	C	C	G	G	T	T	C	T	G	G	G	A	hsFATP4
900	G	A	A	G	A	G	T	T	C	T	C	A	G	C	C	T	C	C	C	C	G	G	T	T	C	T	G	G	G	A	mmFATP4
930	C	G	A	T	T	G	T	A	T	C	A	A	G	T	A	C	A	A	C	T	G	C	A	C	G	A	T	T	G	T	hsFATP4
930	T	G	A	T	T	G	T	A	T	C	A	A	G	T	A	C	A	A	C	T	G	C	A	C	A	G	T	T	G	T	mmFATP4
960	G	C	A	G	T	A	C	A	T	T	G	G	T	G	A	A	C	T	G	T	G	C	C	G	C	T	A	C	C	T	hsFATP4
960	A	C	A	G	T	A	C	A	T	T	G	G	T	G	A	A	C	T	G	T	G	C	C	G	C	T	A	C	C	T	mmFATP4
990	C	C	T	G	A	A	C	C	A	G	C	C	A	C	C	G	C	G	G	A	G	G	C	A	G	A	A	A	A	hsFATP4	
990	C	C	T	G	A	A	C	C	A	G	C	C	A	C	C	C	G	T	G	A	G	G	C	T	G	A	G	T	C	mmFATP4	
1020	C	C	A	G	C	A	C	C	A	G	G	T	T	C	G	C	A	T	G	G	C	A	C	T	A	G	G	C	A	A	hsFATP4
1020	T	C	G	G	C	A	C	C	A	A	G	G	T	T	C	G	C	A	T	G	G	C	A	C	T	G	G	C	A	A	mmFATP4

FIG. 31E



1050	TGG	CCTCCGGCAGTCCCATCTGGACC	ACCTT	hsFATP4
1050	CGG	TCCTCCGGCAGTCCCATCTGGACC	GACTT	mmFATP4
1080	T	TCCAGCCGCTTCCCACT	ACCCAGGTGGC	hsFATP4
1080	CTC	CAGCCGTTCACAT	CCCCAGGTGGC	mmFATP4
1110	TGAGTTCTA	CGGGGCCAC	AGAGTGCAACTG	hsFATP4
1110	TGAGTTCTA	TGGGGCCAC	TGAGTGCAACTG	mmFATP4
1140	TAGCCCTGGGCAACTT	CGACAGCC	AGGTGGG	hsFATP4
1140	TAGCCCTGGGCAACTT	TGACAGCC	GGGTGGG	mmFATP4
1170	GGCCCTGTTGGT	TTCAATAGCCGCATCTGTC	CT	

FIG. 31F



Appl'n No.:
Title:
Inventors:

09/405,504
METHODS OF IDENTIFYING...
Andreas Stahl, *et al.*
Replacement Sheet

1260	G	C	C	C	G	A	C	G	G	C	G	T	C	T	G	C	A	T	T	C	C	C	T	G	C	C	A	G	C	C	hsFATP4
1260	A	C	C	C	G	A	T	G	G	A	G	T	C	T	G	C	A	T	T	C	C	C	T	G	T	C	A	A	C	C	mmFATP4
1290	A	G	G	T	G	A	G	C	C	G	G	C	C	A	G	C	T	G	G	T	G	G	G	C	C	G	C	A	T	hsFATP4	
1290	A	G	G	T	C	A	G	C	C	A	G	G	C	C	A	G	C	T	G	G	T	G	G	T	C	C	G	C	A	T	mmFATP4
1320	C	A	T	C	C	A	G	A	A	A	G	A	C	C	C	C	C	T	G	C	G	C	C	G	C	T	T	C	G	A	hsFATP4
1320	C	A	T	C	C	A	G	C	A	G	A	C	C	C	C	T	C	T	G	C	G	C	C	G	T	T	T	C	G	A	mmFATP4
1350	T	G	G	C	T	A	C	C	T	C	A	A	C	C	A	G	G	G	C	G	C	C	A	A	C	A	A	C	A	A	hsFATP4
1350	C	G	G	G	T	A	C	C	T	C	A	A	C	C	A	G	G	G	T	G	C	C	A	A	C	A	C	A	A	A	mmFATP4
1380	G	A	A	G	A	T	T	G	C	C	A	A	G	A	T	G	T	C	T	T	C	A	A	G	A	A	G	G	G	G	hsFATP4
1380	G	A	A	G	A	T	T	G	C	T	A	A	T	G	A	T	G	T	C	T	T	C	A	A	G	A	A	G	G	G	mmFATP4
1410	G	G	A	C	C	A	G	C	C	T	A	C	C	T	T	A	C	T	G	G	T	G	A	T	G	T	G	C	T	hsFATP4	
1410	G	G	A	C	C	A	A	G	C	C	T	A	C	C	T	C	A	C	T	G	G	T	G	A	C	G	T	C	T	mmFATP4	
1440	G	G	T	G	A	T	G	G	A	C	G	A	G	C	T	G	G	G	C	T	A	C	C	T	G	T	A	C	T	T	hsFATP4
1440	G	G	T	G	A	T	G	G	A	T	G	A	G	C	T	G	G	G	T	T	A	C	C	T	G	T	A	C	T	T	mmFATP4

FIG. 31G



1680	GG	A	CT	GC	CT	GT	AT	GC	CG	CC	CC	CA	TC	TT	hsFATP4
1680	GG	A	CT	GC	CT	GT	AT	GC	CG	CC	CC	CA	TC	TT	mmFATP4
1710	CC	T	GC	GC	CT	CC	CT	GA	CT	GC	CA	CA	AA	AC	hsFATP4
1710	CC	T	GC	GC	CT	CC	CT	GA	CT	GC	CA	CA	AA	AC	mmFATP4
1740	AG	G	A	CC	TA	CA	AG	TT	CC	AG	AA	CA	GA	CT	hsFATP4
1740	AG	G	A	CC	TA	CA	AG	TT	CC	AG	AA	CA	GA	CT	mmFATP4
1770	AC	GG	AA	AG	GA	GG	GC	TT	TG	AC	CC	CG	CT	GT	hsFATP4
1770	GC	GG	AA	AG	GA	GG	GC	TT	TG	AC	CC	CG	CT	GT	mmFATP4
1800	GA	AG	AC	CC	CG	CT	GT	TT	CT	AT	CT	GA	TC	CA	hsFATP4
1800	GA	AG	AC	CC	CG	CT	GT	TT	CT	AT	CT	GA	TC	CG	mmFATP4
1830	GA	AG	GG	CC	CG	CT	AC	CG	TT	CC	CG	CT	GG	AA	hsFATP4
1830	GA	AG	GG	CC	CG	CT	AC	CG	TT	CG	CA	CT	GG	AA	mmFATP4
1860	GG	CC	TA	CA	GG	CC	AT	CC	AG	GC	CA	GG	CG	GA	hsFATP4
1860	GG	CC	TA	TA	CA	GG	CC	AT	CC	AG	GC	CA	GG	GA	mmFATP4
1890	GA	AG	CT	GG											hsFATP4
1890	GA	AG	CT	GG											mmFATP4

FIG. 31I



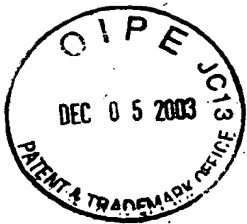
1	M R A P G A G A A S V V S L A L L W L L	hFATP1.
1	M R A P G A G T A S V A S L A L L W F L	mmFATP1
21	G L P W T W S A A A A L G V Y V G S G G	hFATP1..
21	G L P W T W S A A A A F C V Y V G G G G	mmFATP1
41	W R F L R I V C K T A R R D L F G L S V	hFATP1.
41	W R F L R I V C K T A R R D L F G L S V	mmFATP1
61	L I R V R L E L R R H Q R A G H T I P R	hFATP1.
61	L I R V R L E L R R H R R A G D T I P C	mmFATP1
81	I F Q A V V Q R Q P E R L A L V D A G T	hFATP1.
81	I F Q A V A R R Q P E R L A L V D A S S	mmFATP1
101	G E C W T F A Q L D A Y S N A V A N L F	hFATP1.
101	G I C W T F A Q L D T Y S N A V A N L F	mmFATP1
121	R Q L G F A P G D V V A I F L E G R P E	hFATP1.
121	R Q L G F A P G D V V A V F L E G R P E	mmFATP1
141	F V G L W L G L A K A G M E A A L L N V	hFATP1.
141	F V G L W L G L A K A G V V A A L L N V	mmFATP1
161	N L R R E P L A F C L G T S G A K A L I	hFATP1.
161	N L R R E P L A F C L G T S A A K A L I	mmFATP1
181	F G G E M V A A V A E V S G H L G K S L	hFATP1.
181	Y G G E M A A A V A E V S E Q L G K S L	mmFATP1
201	I K F C S G D L G P E G I L P D T H L L	hFATP1.
201	L K F C S G D L G P E S I L P D T Q L L	mmFATP1
221	D P L L K E A S T A P L A Q I P S K G M	hFATP1.
221	D P M L A E A P T T P L A Q A P G K G M	mmFATP1
241	D D R L F Y I Y T S G T T G L P K A A I	hFATP1.
241	D D R L F Y I Y T S G T T G L P K A A I	mmFATP1
261	V V H S R Y Y R M A A F G H H A Y R M Q	hFATP1.
261	V V H S R Y Y R I A A F G H H S Y S M R	mmFATP1

FIG. 32A



281	A A D V L Y D C L P L Y H S A G N I	I G	hFATP1.
281	A A D V L Y D C L P L Y H S A G N I	M G	mmFATP1
301	V G Q C L I Y G L T V V L R K K F S A S		hFATP1.
301	V G Q C V I Y G L T V V L R K K F S A S		mmFATP1
321	R F W D D C I K Y N C T V V Q Y I G E I		hFATP1.
321	R F W D D C V K Y N C T V V Q Y I G E I		mmFATP1
341	C R Y L L K Q P V R E A E R R H R V R L		hFATP1.
341	C R Y L L R Q P V R D V E Q R H R V R L		mmFATP1
361	A V G N G L R P A I W E E F T E R F G V		hFATP1.
361	A V G N G L R P A I W E E F T Q R F G V		mmFATP1
381	R Q I G E F Y G A T E C N C S I A N M D		hFATP1.
381	P Q I G E F Y G A T E C N C S I A N M D		mmFATP1
401	G K V G S C G F N S R I L P H V Y P I R		hFATP1.
401	G K V G S C G F N S R I L T H V Y P I R		mmFATP1
421	L V K V N E D T M E L L R D A Q G L C I		hFATP1.
421	L V K V N E D T M E P L R D S E G L C I		mmFATP1
441	P C Q A G E P G L L V G Q I N Q Q D P L		hFATP1.
441	P C Q P G E P G L L V G Q I N Q Q D P L		mmFATP1
461	R R F D G Y V S E S A T S K K I A H S V		hFATP1.
461	R R F D G Y V S D S A T N K K I A H S V		mmFATP1
481	F S K G D S A Y L S G D V L V M D E L G		hFATP1.
481	F R K G D S A Y L S G D V L V M D E L G		mmFATP1
501	Y M Y F R D R S G D T F R W R G E N V S		hFATP1.
501	Y M Y F R D R S G D T F R W R G E N V S		mmFATP1
521	T T E V E G V L S R L L G Q T D V A V Y		hFATP1.
521	T T E V E A V L S R L L G Q T D V A V Y		mmFATP1
541	G V A V P G V E G K A G M A A V A D P H		hFATP1.
541	G V A V P G V E G K A G M A A I A D P H		mmFATP1

FIG. 32B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

561	S	L	L	D	P	N	A	I	Y	Q	E	L	Q	K	V	L	A	P	Y	A	hFATP1.
561	S	Q	L	D	P	N	S	M	Y	Q	E	L	Q	K	V	L	A	S	Y	A	mmFATP1
581	R	P	I	F	L	R	L	L	P	Q	V	D	T	T	G	T	F	K	I	Q	hFATP1.
581	R	P	I	F	L	R	L	L	P	Q	V	D	T	T	G	T	F	K	I	Q	mmFATP1
601	K	T	R	L	Q	R	E	G	F	D	P	R	Q	T	S	D	R	L	F	F	hFATP1.
601	K	T	R	L	Q	R	E	G	F	D	P	R	Q	T	S	D	R	L	F	F	mmFATP1
621	L	D	L	K	Q	G	H	Y	L	P	L	N	E	A	V	Y	T	R	I	C	hFATP1.
621	L	D	L	K	Q	G	R	Y	V	P	L	D	E	R	V	H	A	R	I	C	mmFATP1
641	S	G	A	F	A	L															hFATP1.
641	A	G	D	F	S	L															mmFATP1

FIG. 32C

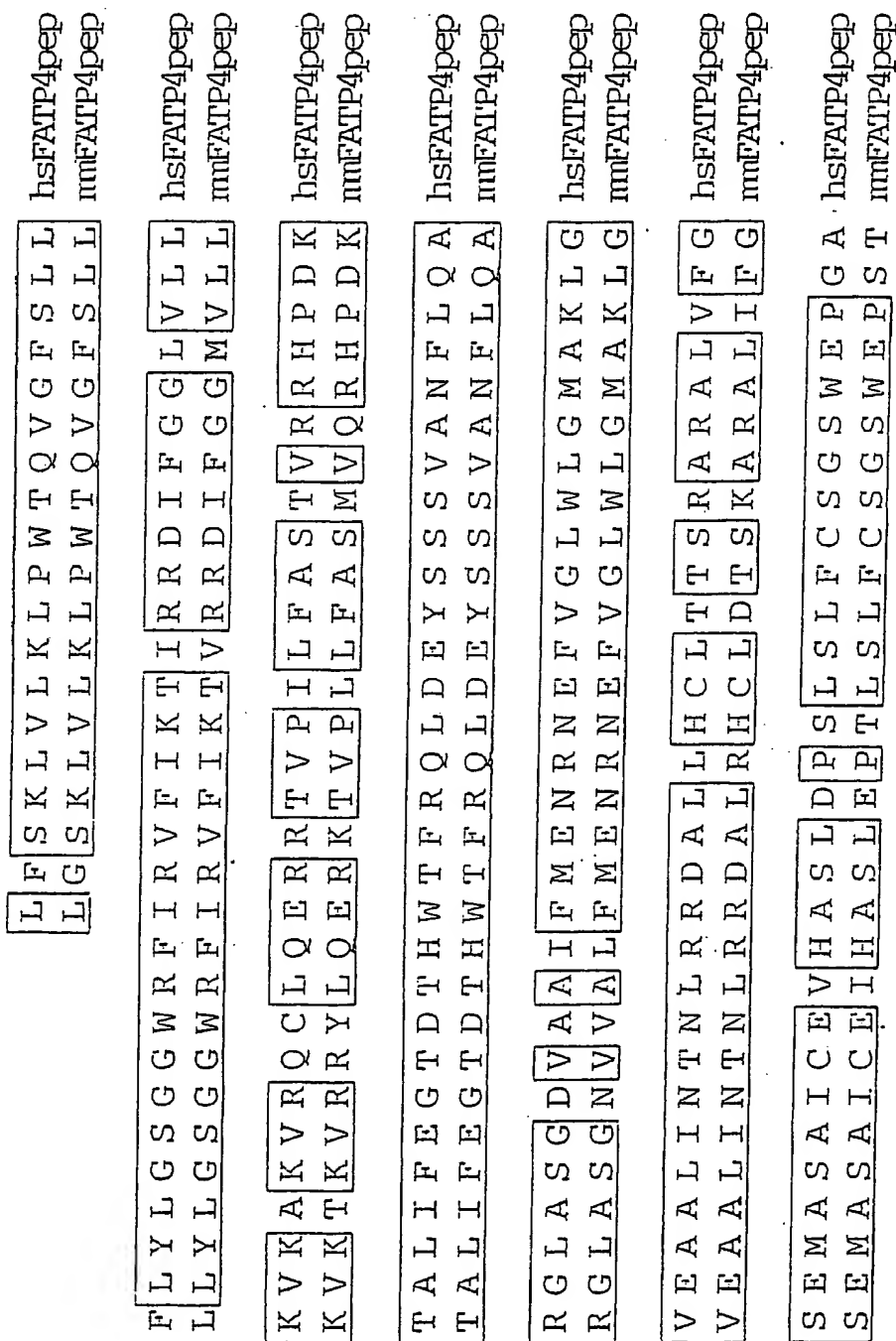


FIG. 33A



V P P	S T E H L D P L L	K D A P K H L P S	C P D K G F T D K	hsFATP4pep
V P V	S T E H L D P L L	E D A P K H L P S	H P D K G F T D K	mmFATP4pep
L F Y	I Y T S G T T G L P K A A	I V V H S R Y Y R M A	A L V	hsFATP4pep
L F Y	I Y T S G T T G L P K A A	I V V H S R Y Y R M A	S L V	mmFATP4pep
Y Y G F R M R P	N D I V Y D C L P L Y H S	A G N I V G I G Q		hsFATP4pep
Y Y G F R M R P	D D I V Y D C L P L Y H S	S R K H R G D W Q		mmFATP4pep
C L L H G M T V V	I R K K F S A S R F W D D C I K Y N C T I			hsFATP4pep
C L L H G M T V V	I R K K F S A S R F W D D C I K Y N C T V			mmFATP4pep
V Q Y I G E L C R Y L L	N Q P P R E A E N Q	H Q V R M A L G		hsFATP4pep
V Q Y I G E L C R Y L L	N Q P P R E A E S R H	H K V R M A L G		mmFATP4pep
N G L R Q S I W T	N F S S R F H I P Q V A E F Y G A T E C N			hsFATP4pep
N G L R Q S I W T	D F S S R F H I P Q V A E F Y G A T E C N			mmFATP4pep
C S L G N F D S	Q V G A C G F N S R I L S F V Y P I R L V R			hsFATP4pep
C S L G N F D S	R V G A C G F N S R I L S F V Y P I R L V R			mmFATP4pep

FIG. 33B

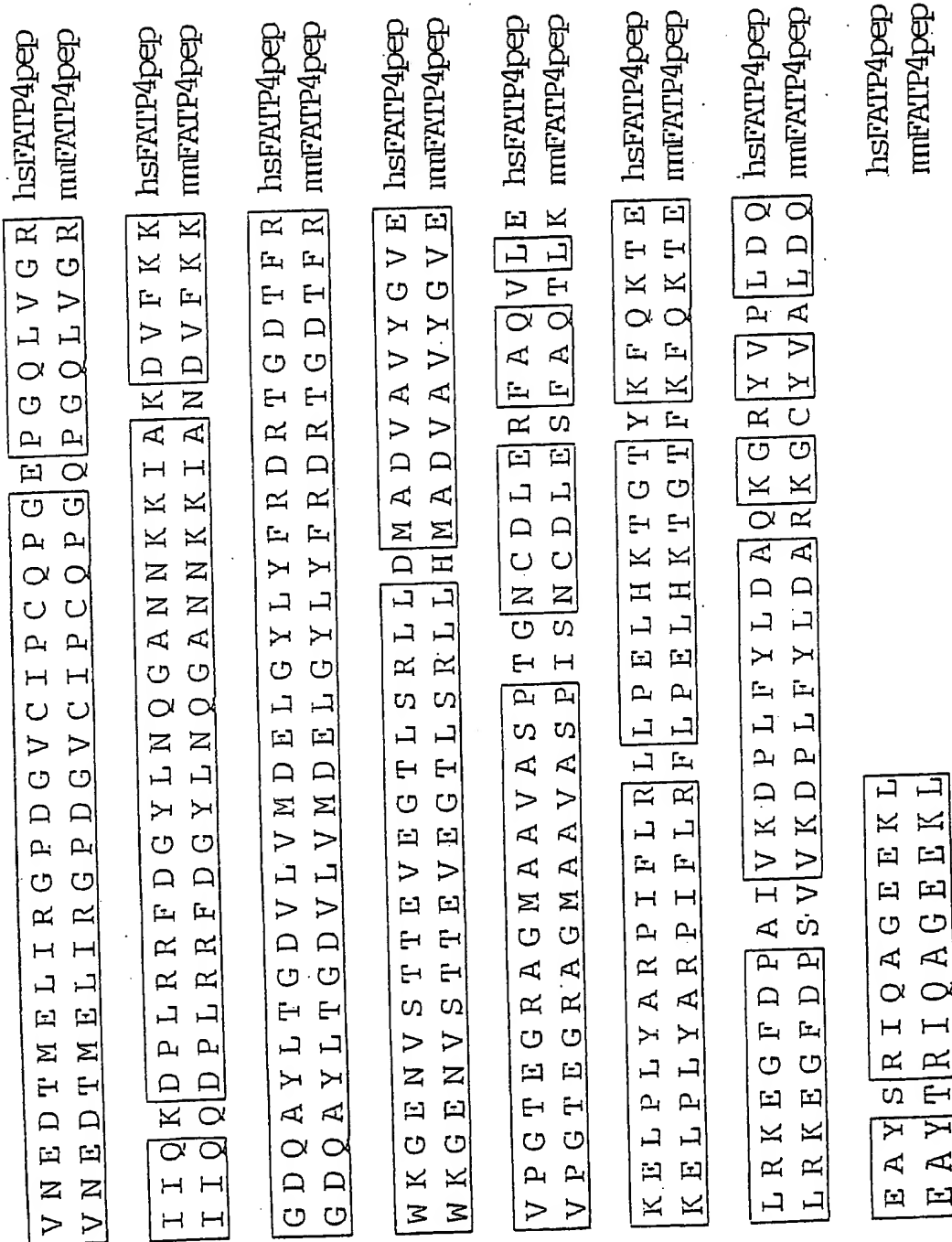


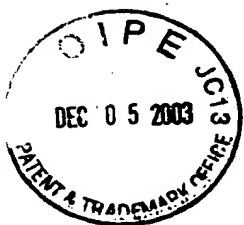
FIG. 33C



hsFATP6

1 aac ggc aag taa gcg caa cgc aat taa tgt gag tag ctc act cat tag gca ccc cag gct
61 tta cac ttt atg ctt ccg ggc tgc tat gtt gtg tgg aat tgt gag cgg ata cca att tca
121 cac agg aac cag cta tga cat gat tac gaa ttt aat acg act cac tat agg gaa ttt ggc
181 cct cga ggc caa gaa ttc ggc acg agg ggt gct gag ccc ctg cgc ctt ttc cgg gct cga att
241 gag act gta aat cgc tgc gct tct cag tca tca tgc aga gga gaa ctt ttc cgg gct cga att
301 cag cct cca act ctg agg gtg ggc tgc gag gct ccc tgc ttt cca gcc cag tga ccc aag
361 gac ctt ctt cag cag cct tgc ggc cga cct ttt cgg tgc tga cca gcc cag tga ccc aag
421 ctt aat ctt cag cag cct tgc ggc cga cct ttt cgg tgc tga cca gcc cag tga ccc aag
481 agg att cct ccc cat ccc gct tgc ccc cgg aaa agc tga cca gaa ctt cag gtg taa gcc
541 ctg agt agt gag gat ctg cgg tct ccg tgg aga gct gtg cct gga aga gaa gga cgc tgg
601 tgg ggc ctg aga tca gag ctg tct tct ggc cca gtt gcc ccc atg ctt ctg tca tgg cta
661 aca gtt cta ggg gct gga atg gtc gtc gtc ctg cac ttc ttg cag aaa ctc ctg ttc cct tac
721 ttt tgg gat gac ttc tgg ttc gtg ttg aag gtg gtg ctc att ata att cgg ctg aag aag
781 tat gaa aag aga ggg gag ctg gtg act gtg ctg gat aaa ttc ttg agt cat gcc aaa aga
Y E K R G E L V T V L D K F L S H A K R

FIG. 34A



841 caa cct cgg aaa cct ttc atc atc tat gag gga gac atc tac acc tat cag gat gta gac
Q P R K P F I I I Y E G D I Y T Y Q D V D
901 aaa agg agc agc aga gtg gcc cat gtc ttc ctg aac cat tcc tct ctg aaa aag ggg gac
K R S S R V A H V F L N H S S L K K G D
961 acg gtg gct ctg atg agc aat gag ccg gac ttc gtt cac gtg tgg ttc ggc ctc gcc
T V A L L M S N E P D F V H V W F G L A
1021 aag ctg ggc tgc gtg gtg gcc ttt ctc aac acc aac att cgc tcc aac tcc ctc ctg aat
K L G C V V A F L N T N I R S N S L L N
1081 tgc atc cgc gcc tgt ggg gcc aga gcc cta gtg gtg ggc gca gat ttg ctt gga acg gta
C I R A C G P R A L V V G A D L L G T V
1141 gaa gaa atc ctt cca agc ctc tca gaa aat atc agt gtt tgg ggg atg aaa gat tct gtt
E E I L P S L S E N I S V W G M K D S V
1201 cca caa ggt gta att tca ctc aaa gaa aaa ctg agc acc tca cct gat gag ccc gtg cca
P Q G V I S L K E K L S T S P D E P V P
1261 cgc agc cac cat gtt gtc tca ctc aag tct act tgt ctt tac att ttt acc tct gga
R S H H V V S L L K S T C L Y I F T S G
1321 aca aca ggt cta cca aaa gca gct gtg att agt cag ctg cag gtt tta agg ggt tct gct
T T G L P K A A V I S Q L Q V L R G S A
1381 gtc ctg tgg gct ttt ggt tgt act gct cat gac att gtt tat ata acc ctt cct ctg tat
V L W A F G C T A H D I V Y I T L P L Y

FIG. 34B



1441 cat agt tca gca gct atc ctg gga att tct gga tgt. gtt gag ttg ggt gcc act tgt gtg
H S S A A I L G I S G C V E L G A T C V
1501 tta aag aag aaa ttt tca gca agc cag ttt tgg agt gac tgc aag aag tat gat gtg act
L K K F S A S Q F W S D C K K Y D V T
1561 gtg ttt cag tat att gga gaa ctt tgt cgc tac ctt tgc aaa caa tct aag aga gaa gga
V F Q Y I G E L C R Y L C K Q S K R E G
1621 gaa aag gat cat aag gtg cgt ttg gca att gga aat ggc ata cgg agt gat gta tgg aga
E K D H K V R L A I G N G I R S D V W R
1681 gaa ttt tta gac aga ttt gga aat ata aag gtg tgt gaa ctt tat gca gct acc gaa tca
E F L D R F G N I K V C E L Y A A T E S
1741 agc ata tct ttc atg aac tac act ggg aga att gga gca att ggg aga aca aat ttg ttt
S I S F M N Y T G R I G A I G R T N L F
1801 tac aaa ctt ctt tcc act ttt gac tta ata aag tat gac ttt cag aaa gat gaa ccc atg
Y K L L S T F D L I K Y D F Q K D E P M
1861 aga aat gag cag ggt tgg tgt att cat gtg aaa gga gaa cct gga ctt ctc att tct
R N E Q G W C I H V K K G E P G L L I S
1921 cga gtg aat gca aaa aat ccc ttc ttt ggc tat gct ggg cct tat aag cac aca aaa gac
R V N A K N P F F G Y A G P Y K H T K D
1981 aaa ttg ctt tgt gat gtt ttt aag aag gga gat gtt tac ctt aat act gga gac tta ata
K L L C D V F K K G D V Y L N T G D L I
2041 gtc cag gat cag gac aat ttc ctt tat ttt tgg gac cgt act gga gac act ttc aga tgg
V Q D Q D N F L Y F W D R T G D T F R W
2101 aaa gga gaa aat gtc gca acc act gag gtt gct gat gtt att gga atg ttg gat ttc ata

FIG. 34C



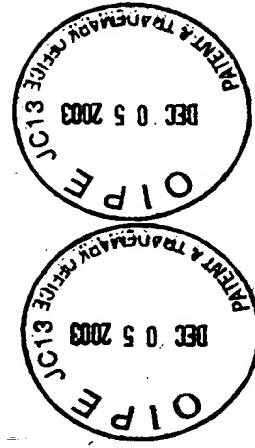
1	M	R	A	P	-	-	G	A	G	A	A	S	V	V	S	L	A	L	L	W	hsFATP1pep
1	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	F	S	K	L	-	hsFATP4pep
1	M	L	L	S	W	L	T	V	L	G	A	G	M	V	V	L	H	F	L	Q	hsFATP6pep
19	L	L	G	L	P	W	T	W	S	A	A	A	A	L	G	V	Y	V	G	S	hsFATP1pep
6	V	L	K	L	P	W	T	Q	V	G	F	S	L	L	F	L	Y	L	G	S	hsFATP4pep
21	K	L	L	F	P	Y	F	W	D	D	F	-	-	-	-	-	-	-	-	-	hsFATP6pep
39	G	G	W	R	F	L	R	I	V	C	K	T	A	R	R	D	L	F	G	L	hsFATP1pep
26	G	G	W	R	F	I	R	V	F	I	K	T	I	R	R	D	I	F	G	G	hsFATP4pep
32	-	-	W	F	V	L	K	V	-	-	-	-	-	-	-	-	-	-	-	-	hsFATP6pep
59	S	V	L	I	R	V	R	L	E	L	R	R	H	Q	R	A	G	H	T	I	hsFATP1pep
46	L	V	L	L	K	V	K	A	K	V	R	Q	C	L	Q	E	R	R	T	V	hsFATP4pep
38	-	V	L	I	I	I	R	L	K	K	Y	E	K	R	G	E	L	V	T	V	hsFATP6pep
79	P	R	I	F	Q	A	V	V	Q	R	Q	P	E	R	L	A	L	V	D	A	hsFATP1pep
66	P	I	L	F	A	S	T	V	R	R	H	P	D	K	T	A	L	I	F	E	hsFATP4pep
57	L	D	K	F	L	S	H	A	K	R	Q	P	R	K	P	F	I	I	Y	E	hsFATP6pep

FIG. 36A



99	G	T	G	E	C	W	T	F	A	Q	L	D	A	Y	S	N	A	V	A	N	hsFATP1pep
86	G	T	D	T	H	W	T	F	R	Q	L	D	E	Y	S	S	S	V	A	N	hsFATP4pep
77	G	-	-	D	I	Y	T	Y	Q	D	V	D	K	R	S	S	R	V	A	H	hsFATP6pep
119	-	L	F	R	Q	L	G	F	A	P	G	D	V	V	A	I	F	L	E	G	hsFATP1pep
106	-	F	L	Q	A	R	G	L	A	S	G	D	V	A	A	I	F	M	E	N	hsFATP4pep
95	V	F	L	N	H	S	S	L	K	K	G	D	T	V	A	L	L	M	S	N	hsFATP6pep
138	R	P	E	F	V	G	L	W	L	G	L	A	K	A	G	M	E	A	A	L	hsFATP1pep
125	R	N	E	F	V	G	L	W	L	G	M	A	K	L	G	V	E	A	A	L	hsFATP4pep
115	E	P	D	F	V	H	V	W	F	G	L	A	K	L	G	C	V	V	A	F	hsFATP6pep
158	L	N	V	N	L	R	R	E	P	L	A	F	C	L	G	T	S	G	A	K	hsFATP1pep
145	I	N	T	N	L	R	R	D	A	L	L	H	C	L	T	T	S	R	A	R	hsFATP4pep
135	L	N	T	N	I	R	S	N	S	L	L	N	C	I	R	A	C	G	P	R	hsFATP6pep
178	A	L	I	F	G	G	E	M	V	A	A	V	A	E	V	S	G	H	L	G	hsFATP1pep
165	A	L	V	F	G	S	E	M	A	S	A	I	C	E	V	H	A	S	L	D	hsFATP4pep
155	A	L	V	V	G	A	D	L	L	G	T	V	E	E	I	L	P	S	L	S	hsFATP6pep

FIG. 36B





198	K	S	L	I	K	F	C	S	G	D	L	G	P	E	G	I	L	P	D	T	hsFATP1pep
185	P	S	L	S	L	F	C	S	G	S	W	E	P	G	A	V	P	P	S	T	hsFATP4pep
175	E	N	I	S	V	W	G	M	K	D	S	V	P	Q	G	V	I	S	-	-	hsFATP6pep
218	H	L	L	D	P	L	L	K	E	A	S	T	A	P	L	A	Q	I	P	S	hsFATP1pep
205	E	H	L	D	P	L	L	K	D	A	P	K	-	H	L	P	S	C	P	D	hsFATP4pep
193	-	-	L	K	E	K	L	S	T	S	P	D	E	P	V	P	R	S	H	H	hsFATP6pep
238	K	G	-	-	M	D	D	R	L	F	Y	I	Y	T	S	G	T	T	G	L	hsFATP1pep
224	K	G	-	-	F	T	D	K	L	F	Y	I	Y	T	S	G	T	T	G	L	hsFATP4pep
211	V	V	S	L	L	K	S	T	C	L	Y	I	F	T	S	G	T	T	G	L	hsFATP6pep
256	P	K	A	A	I	V	V	H	S	R	Y	Y	R	M	A	A	F	G	H	H	hsFATP1pep
242	P	K	A	A	I	V	V	H	S	R	Y	Y	R	M	A	A	L	V	Y	Y	hsFATP4pep
231	P	K	A	A	V	I	S	Q	L	Q	V	L	R	G	S	A	-	V	L	W	hsFATP6pep
276	A	Y	R	M	Q	A	A	D	V	L	Y	D	C	L	P	L	Y	H	S	A	hsFATP1pep
262	G	F	R	M	R	P	N	D	I	V	Y	D	C	L	P	L	Y	H	S	A	hsFATP4pep
250	A	F	G	C	T	A	H	D	I	V	Y	I	T	L	P	L	Y	H	S	S	hsFATP6pep

FIG. 36C



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

296	G	N	I	I	G	V	G	Q	C	L	I	Y	G	L	T	V	V	L	R	K	hsFATP1pep	
282	G	N	I	V	G	I	G	Q	C	L	L	H	G	M	T	V	V	I	R	K	hsFATP4pep	
270	A	A	I	L	G	I	S	G	C	V	E	L	G	A	T	C	V	L	K	K	hsFATP6pep	
316	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	C	T	V	V	Q	hsFATP1pep	
302	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	C	T	I	V	Q	hsFATP4pep	
290	K	F	S	A	S	Q	F	W	S	D	C	K	K	Y	D	V	T	V	F	Q	hsFATP6pep	
336	Y	I	G	E	I	C	R	Y	L	L	K	Q	P	V	R	E	A	E	R	R	hsFATP1pep	
322	Y	I	G	E	L	C	R	Y	L	L	N	Q	P	P	R	E	A	E	N	Q	hsFATP4pep	
310	Y	I	G	E	L	C	R	Y	L	L	C	K	Q	S	K	R	E	G	E	K	D	hsFATP6pep
356	H	R	V	R	L	A	V	G	N	G	L	R	P	A	I	W	E	E	F	T	hsFATP1pep	
342	H	Q	V	R	M	A	L	G	N	G	L	R	Q	S	I	W	T	N	F	S	hsFATP4pep	
330	H	K	V	R	L	A	I	G	N	G	I	R	S	D	V	W	R	E	F	L	hsFATP6pep	
376	E	R	F	G	V	R	Q	I	G	E	F	Y	G	A	T	E	C	N	C	S	hsFATP1pep	
362	S	R	F	H	I	P	Q	V	A	E	F	Y	G	A	T	E	C	N	C	S	hsFATP4pep	
350	D	R	F	G	N	I	K	V	C	E	L	Y	A	A	T	E	S	S	I	S	hsFATP6pep	

FIG. 36D



396	I	A	N	M	D	G	K	V	G	S	C	G	F	N	S	R	I	L	P	H	hsFATP1pep
382	L	G	N	F	D	S	Q	V	G	A	C	G	F	N	S	R	I	L	S	F	hsFATP4pep
370	F	M	N	Y	T	G	R	I	G	A	I	G	R	T	N	L	F	Y	K	L	hsFATP6pep
416	V	Y	P	I	R	L	V	K	V	N	E	D	T	M	E	L	L	R	D	A	hsFATP1pep
402	V	Y	P	I	R	L	V	R	V	N	E	D	T	M	E	L	I	R	G	P	hsFATP4pep
390	L	S	T	F	D	L	I	K	Y	D	F	Q	K	D	E	P	M	R	N	E	hsFATP6pep
436	Q	G	L	C	I	P	C	Q	A	G	E	P	G	L	L	V	G	Q	I	N	hsFATP1pep
422	D	G	V	C	I	P	C	Q	P	G	E	P	G	Q	L	V	G	R	I	I	hsFATP4pep
410	Q	G	W	C	I	H	V	K	K	G	E	P	G	L	L	I	S	R	V	N	hsFATP6pep
456	Q	Q	D	P	L	R	R	F	D	G	Y	V	S	E	S	A	T	S	K	-	hsFATP1pep
442	Q	K	D	P	L	R	R	F	D	G	Y	L	N	Q	G	A	N	N	K	-	hsFATP4pep
430	A	K	N	P	-	-	-	F	F	G	Y	A	G	P	Y	K	H	T	K	D	hsFATP6pep
475	K	I	A	H	S	V	F	S	K	G	D	S	A	Y	L	-	S	G	D	V	hsFATP1pep
461	K	I	A	K	D	V	F	K	K	G	D	Q	A	Y	L	-	T	G	D	V	hsFATP4pep
447	K	L	L	C	D	V	F	K	K	G	D	-	V	Y	L	N	T	G	D	L	hsFATP6pep

FIG. 36E



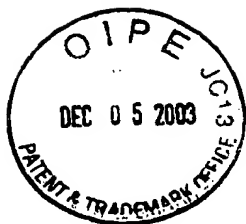
494	L	V	M	D	E	L	G	Y	M	Y	F	R	D	R	S	G	D	T	F	R	hsFATP1pep
480	L	V	M	D	E	L	G	Y	L	Y	F	R	D	R	T	G	D	T	F	R	hsFATP4pep
466	I	V	Q	D	Q	D	N	F	L	Y	F	W	D	R	T	G	D	T	F	R	hsFATP6pep
514	W	R	G	E	N	V	S	T	T	E	V	E	G	V	L	S	R	L	L	G	hsFATP1pep
500	W	K	G	E	N	V	S	T	T	E	V	E	G	T	L	S	R	L	L	D	hsFATP4pep
486	W	K	G	E	N	V	A	T	T	E	V	A	D	V	I	G	M	L	D	F	hsFATP6pep
534	Q	T	D	V	A	V	Y	G	V	A	V	P	G	V	E	G	K	A	G	M	hsFATP1pep
520	M	A	D	V	A	V	Y	G	V	E	V	P	G	T	E	G	R	A	G	M	hsFATP4pep
506	I	Q	E	A	N	V	Y	G	V	A	I	S	G	Y	E	G	R	A	G	M	hsFATP6pep
554	A	A	V	A	-	D	P	H	S	L	L	D	P	N	A	I	Y	Q	E	L	hsFATP1pep
540	A	A	V	A	-	S	P	T	G	N	C	D	L	E	R	F	A	Q	V	L	hsFATP4pep
526	A	S	I	I	L	K	P	N	T	S	L	D	L	E	K	V	Y	E	Q	V	hsFATP6pep
573	Q	K	V	L	A	P	Y	A	R	P	I	F	L	R	L	L	P	Q	V	D	hsFATP1pep
559	E	K	E	L	P	L	Y	A	R	P	I	F	L	R	L	L	P	E	L	H	hsFATP4pep
546	V	T	F	L	P	A	Y	A	C	P	R	F	L	R	I	Q	E	K	M	E	hsFATP6pep

FIG. 36F



593	T	T	G	T	F	K	I	Q	K	T	R	L	Q	R	E	G	F	D	P	R	hsFATP1pep
579	K	T	G	T	Y	K	F	Q	K	T	E	L	R	K	E	G	F	D	P	A	hsFATP4pep
566	A	T	G	T	F	K	L	L	K	H	Q	L	V	E	D	G	F	N	P	L	hsFATP6pep
613	Q	T	S	D	R	L	F	F	L	D	L	K	Q	G	H	Y	L	P	L	N	hsFATP1pep
599	I	V	K	D	P	L	F	Y	L	D	A	Q	K	G	R	Y	V	P	L	D	hsFATP4pep
586	K	I	S	E	P	L	Y	F	M	D	N	L	K	K	S	Y	V	L	L	T	hsFATP6pep
633	E	A	V	Y	T	R	I	C	S	G	A	F	A	L							hsFATP1pep
619	Q	E	A	Y	S	R	I	Q	A	G	E	E	K	L							hsFATP4pep
606	R	E	L	Y	D	Q	I	M	L	G	E	I	K	L							hsFATP6pep

FIG. 36G



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

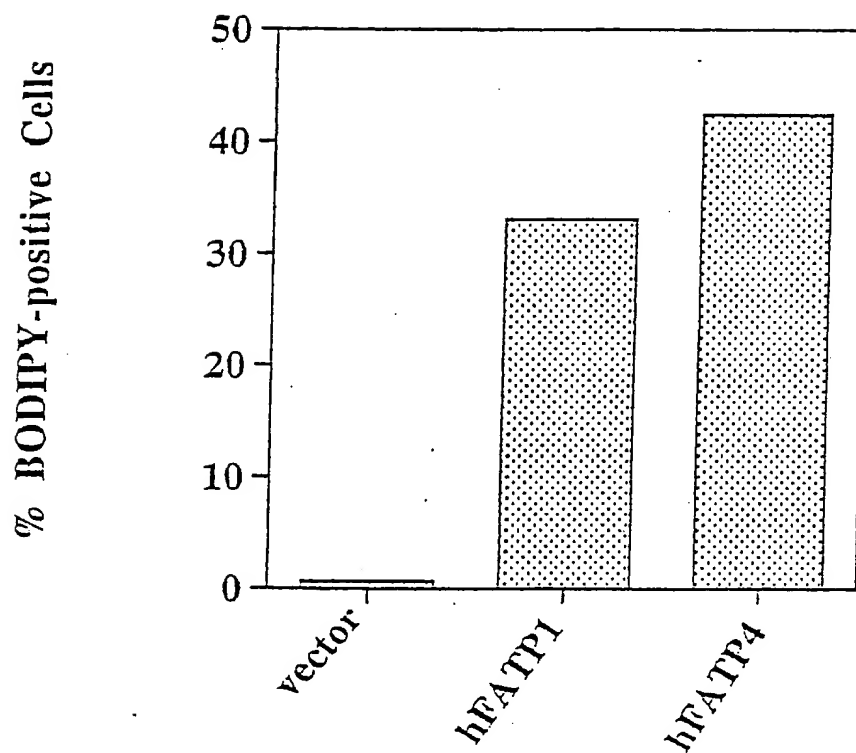
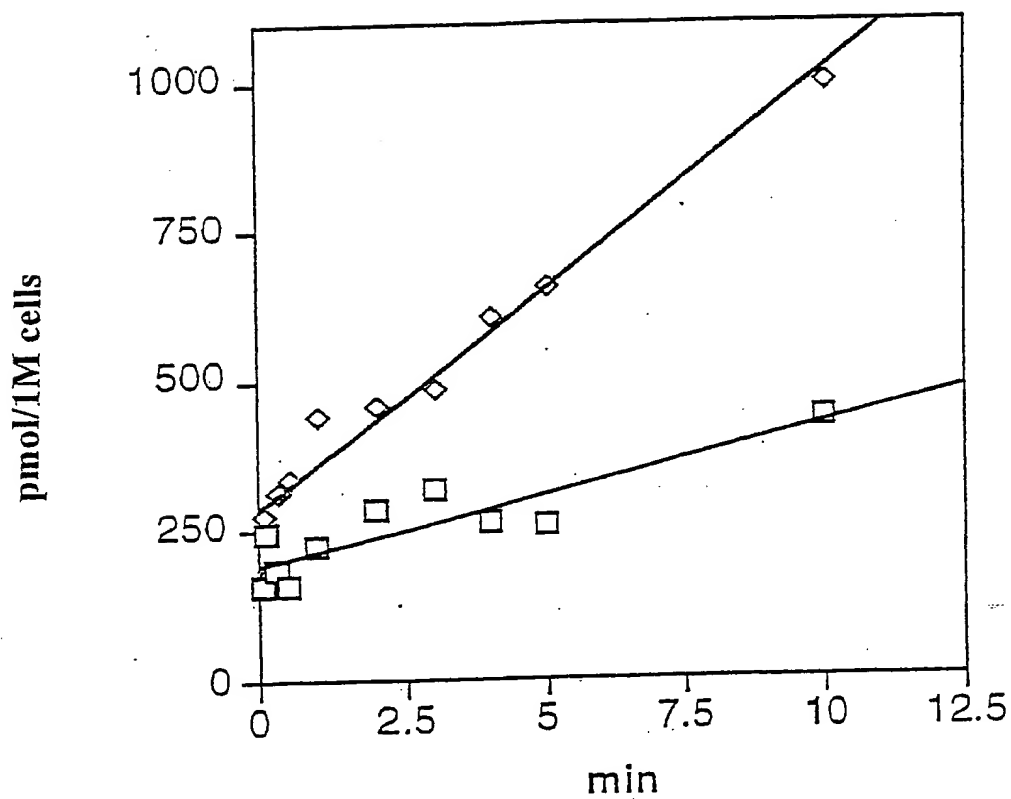


FIG. 37



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet



- 293 vector control: 23 pmol/(min*1*10⁶ cells)
◇ 293 FATP4 clone 7: 73 pmol/(min*1*10⁶ cells)

FIG. 38



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, et al.
Replacement Sheet

hsFATP4_	1	MLL	-	GAS	L	V	G	V	L	L	F	S	K	L	-	V	L	K	L	P	W	T	Q	V	G	F	S	L	L	F	31				
mmFATP4_	1	MLL	-	GAS	L	V	G	V	L	L	F	S	K	L	-	V	L	K	L	P	W	T	Q	V	G	F	S	L	L	X	31				
hsFATP1_	1	MRA	P	G	A	A	S	V	S	L	A	L	L	W	L	L	G	L	P	W	T	W	S	A	A	A	L	L	G	33					
hsFATP4_	32	L	Y	L	G	S	G	G	W	R	F	I	R	V	F	I	K	T	I	R	R	D	I	F	G	G	L	V	L	L	K	V	K	A	64
mmFATP4_	32	L	Y	L	G	S	G	G	W	R	F	I	R	V	F	I	K	T	V	R	R	D	I	F	G	G	M	V	L	L	K	V	K	T	64
hsFATP1_	34	V	Y	V	G	S	G	G	W	R	F	L	R	I	V	C	K	T	A	R	R	D	L	F	G	L	S	V	L	I	R	V	R	L	66
hsFATP4_	65	K	V	R	Q	C	L	Q	E	R	R	T	V	P	I	L	F	A	S	T	V	R	R	H	P	D	K	T	A	L	I	F	E	G	97
mmFATP4_	65	K	V	R	R	Y	L	Q	E	R	K	T	V	P	L	L	F	A	S	M	V	Q	R	H	P	D	K	T	A	L	I	F	E	G	97
hsFATP1_	67	E	L	R	R	H	Q	R	A	G	H	T	I	P	R	I	F	Q	A	V	V	Q	R	Q	P	E	R	L	A	L	V	D	A	G	99
hsFATP4_	98	T	D	T	H	W	T	F	R	Q	L	D	E	Y	S	S	S	V	A	N	F	L	Q	A	R	G	L	A	S	G	D	V	A	A	130
mmFATP4_	98	T	D	T	H	W	T	F	R	Q	L	D	E	Y	S	S	S	V	A	N	F	L	Q	A	R	G	L	A	S	G	N	V	V	A	130
hsFATP1_	100	T	G	E	C	W	T	F	A	Q	L	D	A	Y	S	N	A	V	A	N	L	F	R	Q	L	G	F	A	P	G	D	V	V	A	132
hsFATP4_	131	I	F	M	E	N	R	N	E	F	V	G	L	W	L	G	M	A	K	L	G	V	E	A	A	L	I	N	T	N	L	R	R	D	163
mmFATP4_	131	I	F	M	E	N	R	N	E	F	V	G	L	W	X	G	M	A	K	L	G	V	E	A	A	L	I	N	T	N	L	R	R	D	163
hsFATP1_	133	I	F	L	E	G	R	P	E	F	V	G	L	W	L	G	L	A	K	A	G	M	E	A	A	L	I	N	V	N	L	R	R	E	165
hsFATP4_	164	A	L	L	H	C	L	T	T	S	R	A	R	A	L	V	F	G	S	E	M	A	S	A	I	C	E	V	H	A	S	L	D	P	196
mmFATP4_	164	A	L	R	H	C	L	D	T	S	K	A	R	A	L	I	F	G	S	E	M	A	S	A	I	C	E	I	H	A	S	L	E	P	196
hsFATP1_	166	P	L	A	F	C	L	G	T	S	G	A	K	A	L	I	F	G	G	E	M	V	A	V	A	E	V	S	G	H	L	G	K	198	
hsFATP4_	197	S	L	S	L	F	C	S	G	S	W	E	P	G	A	V	P	P	S	T	E	H	L	D	P	L	L	K	D	A	P	-	K	H	228
mmFATP4_	197	T	L	S	L	F	C	S	G	S	W	E	P	S	T	V	P	V	S	T	E	H	L	D	P	L	L	E	D	A	P	-	K	H	228
hsFATP1_	199	S	L	I	K	F	C	S	G	D	L	G	P	E	G	I	L	P	D	T	H	L	L	D	P	L	L	K	E	A	S	T	A	P	231

FIG. 39A



hsFATP4_229	L	P	S	C	P	D	K	G	F	T	D	K	L	F	Y	I	Y	T	S	G	T	T	G	L	P	K	A	A	I	V	V	H	S	261
mmFATP4_229	L	P	S	H	P	D	K	G	F	T	D	K	L	F	Y	I	Y	T	S	G	T	T	G	L	P	K	A	A	I	V	V	H	S	261
hsFATP1_232	L	A	Q	I	P	S	K	G	M	D	R	L	F	Y	I	Y	T	S	G	T	T	G	L	P	K	A	A	I	V	V	H	S	264	
hsFATP4_262	R	Y	Y	R	M	A	A	L	V	Y	G	F	R	M	R	P	N	D	I	V	Y	D	C	L	P	L	Y	H	S	A	G	N	294	
mmFATP4_262	R	Y	Y	R	M	A	S	L	V	Y	G	F	R	M	R	P	D	D	I	V	Y	D	C	L	P	L	Y	H	S	S	R	K	294	
hsFATP1_265	R	Y	Y	R	M	A	A	F	G	H	H	A	Y	R	M	Q	A	D	V	L	Y	D	C	L	P	L	Y	H	S	A	G	N	297	
hsFATP4_295	I	V	G	I	G	Q	C	L	L	H	G	M	T	V	V	I	R	K	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	327
mmFATP4_295	H	R	G	D	W	Q	C	L	L	H	G	M	T	V	V	I	R	K	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	327
hsFATP1_298	I	I	G	V	G	Q	C	L	I	Y	G	L	T	V	V	L	R	K	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	330
hsFATP4_328	C	T	I	V	Q	Y	I	G	E	L	C	R	Y	L	L	N	Q	P	P	R	E	A	E	N	Q	H	Q	V	R	M	A	L	G	360
mmFATP4_328	C	T	V	V	Q	Y	I	G	E	L	C	R	Y	L	L	N	Q	P	P	R	E	A	E	S	R	H	K	V	R	M	A	L	G	360
hsFATP1_331	C	T	V	V	Q	Y	I	G	E	I	C	R	Y	L	L	K	Q	P	V	R	E	A	E	R	R	H	R	V	R	L	A	V	G	363
hsFATP4_361	N	G	L	R	Q	S	I	W	T	N	F	S	S	R	F	H	I	P	Q	V	A	E	F	Y	G	A	T	E	C	N	C	S	L	393
mmFATP4_361	N	G	L	R	Q	S	I	W	T	D	F	S	S	R	F	H	I	P	Q	V	A	E	F	Y	G	A	T	E	C	N	C	S	L	393
hsFATP1_364	N	G	L	R	P	A	I	W	E	E	F	T	E	R	F	G	V	R	Q	I	G	E	F	Y	G	A	T	E	C	N	C	S	I	396
hsFATP4_394	G	N	F	D	S	Q	V	G	A	C	G	F	N	S	R	I	L	S	F	V	Y	P	I	R	L	V	R	V	N	E	D	T	M	426
mmFATP4_394	G	N	F	D	S	R	V	G	A	C	G	F	N	S	R	I	L	S	F	V	Y	P	I	R	L	V	R	V	N	E	D	T	M	426
hsFATP1_397	A	N	M	D	G	K	V	G	S	C	G	F	N	S	R	I	L	P	H	V	Y	P	I	R	L	V	K	V	N	E	D	T	M	429

FIG. 39B



hsFATP4_427	ELIRGPDGVCI	PCQPG	EPGQL	VGR	I	Q	K	D	P	L	R	459																					
mmFATP4_427	ELIRGPDGVCI	PCQPG	QPGQL	VGR	I	Q	Q	D	P	L	R	459																					
hsFATP1_430	ELIRDAQGL	CIPCA	GEPL	LVG	Q	I	N	Q	Q	D	P	L	R	462																			
hsFATP4_460	FDGYLNQGAN	KKIA	KDV	F	K	K	G	D	Q	A	Y	L	T	G	D	V	L	V	492														
mmFATP4_460	FDGYLNQGAN	KKIA	AND	V	F	K	K	G	D	Q	A	Y	L	T	G	D	V	L	V	492													
hsFATP1_463	FDGYVSESA	TSKKIA	HSV	F	S	K	G	D	S	A	Y	L	S	G	D	V	L	V	495														
hsFATP4_493	MDELGYLY	FRDRT	GDT	F	R	W	K	G	E	N	V	S	T	T	E	V	E	G	T	L	525												
mmFATP4_493	MDELGYLY	FRDRT	GDT	F	R	W	K	G	E	N	V	S	T	T	E	V	E	G	T	L	525												
hsFATP1_496	MDELGYM	YFRDR	SGD	T	F	R	W	R	G	E	N	V	S	T	T	E	V	E	G	V	L	528											
hsFATP4_526	SRLLD	MADVAVYGV	EVPG	T	E	G	R	A	G	M	A	A	V	A	S	P	T	G	558														
mmFATP4_526	SRLLD	MADVAVYGV	EVPG	T	E	G	R	A	G	M	A	A	V	A	S	P	I	S	558														
hsFATP1_529	SRLLG	QTIDVAVYGV	AVPG	V	E	G	K	A	G	M	A	A	V	A	D	P	H	S	561														
hsFATP4_559	NCDLER	FAQ	V	E	K	E	L	P	L	Y	A	R	P	I	F	L	R	L	P	E	L	H	K	T	591								
mmFATP4_559	NCDLES	FAQ	T	L	K	K	E	L	P	L	Y	A	R	P	I	F	L	R	F	L	P	E	L	H	K	T	591						
hsFATP1_562	LLDP	NAIYQ	E	L	Q	K	V	L	A	P	Y	A	R	P	I	F	L	R	L	P	Q	V	D	T	T	594							
hsFATP4_592	GTYY	K	F	Q	K	T	E	L	R	K	E	G	F	D	P	A	I	V	K	D	P	L	F	Y	L	D	A	Q	K	G	R	624	
mmFATP4_592	GTFF	K	F	Q	K	T	E	L	R	K	E	G	F	D	P	S	V	V	K	D	P	L	F	Y	L	D	A	R	K	G	C	624	
hsFATP1_595	GTFF	K	T	I	Q	K	T	R	L	Q	R	E	G	F	D	P	R	Q	T	S	D	R	L	F	F	L	D	L	K	Q	G	H	627
hsFATP4_625	YVPL	D	Q	E	A	Y	S	R	I	Q	A	G	E	E	K	L																	643
mmFATP4_625	YV	A	L	D	Q	E	A	Y	T	R	I	Q	A	G	E	E	K	L															643
hsFATP1_628	Y	L	P	L	N	E	A	V	T	R	I	C	S	G	A	F	A	L															646

FIG. 39C



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Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

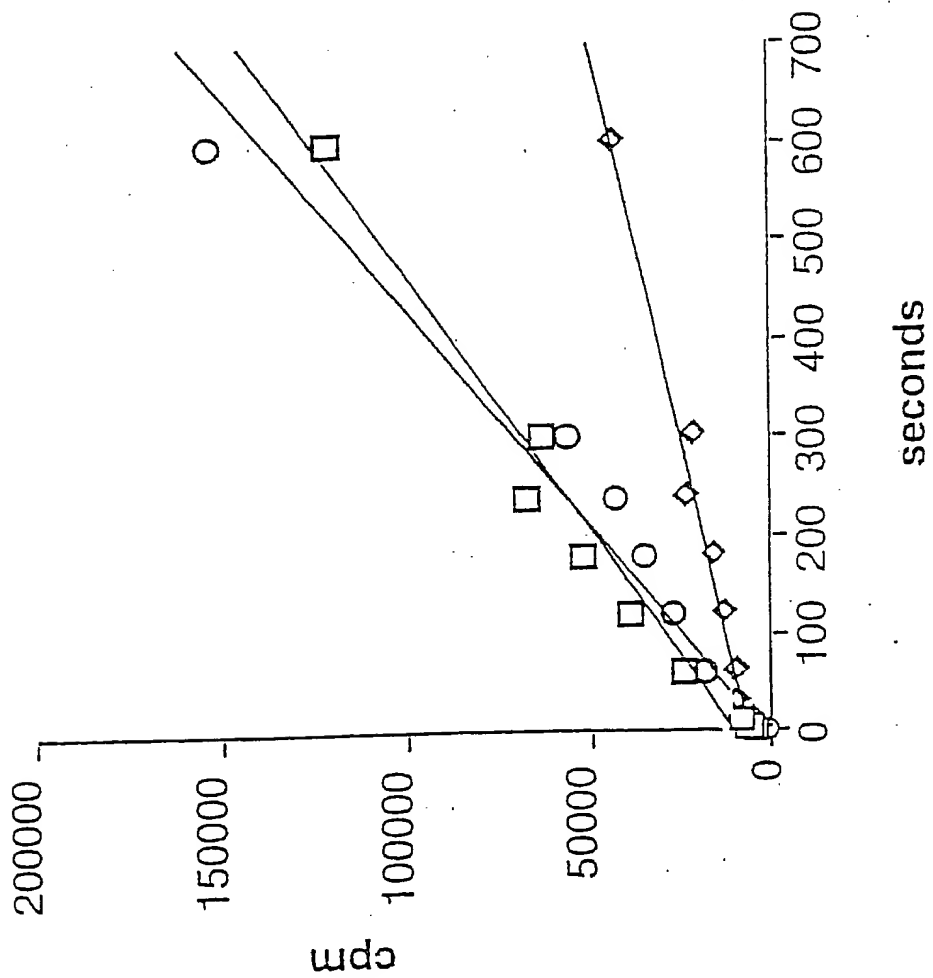


FIG. 40



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

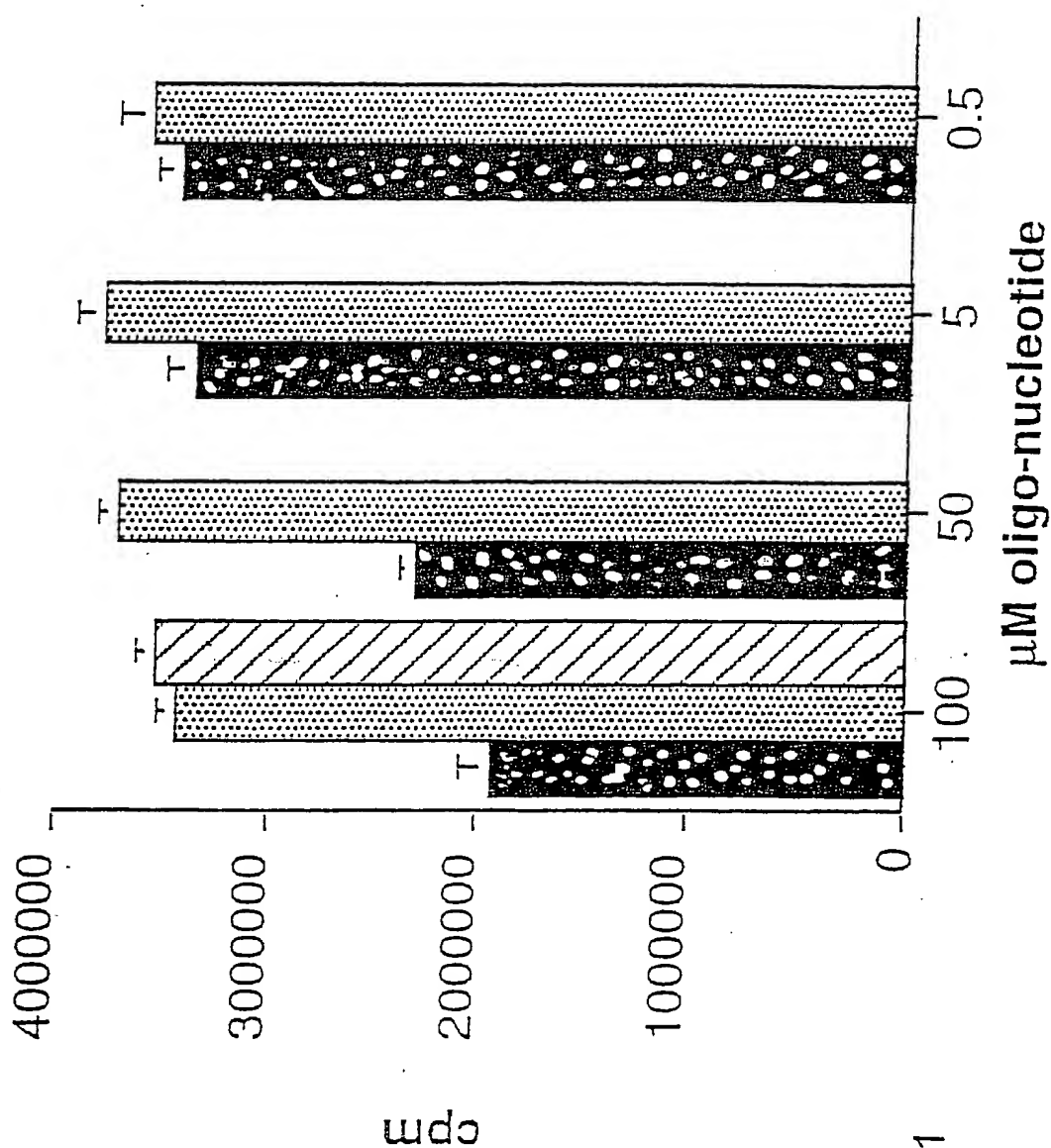


FIG. 41

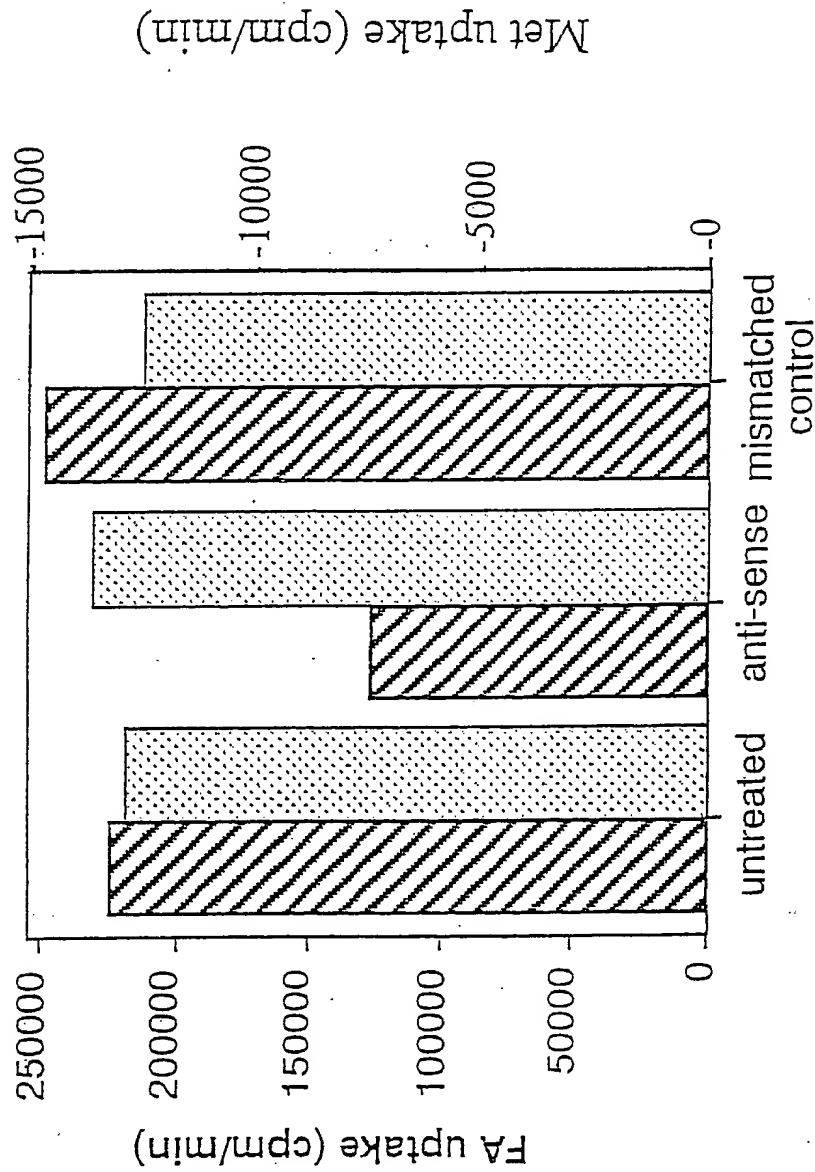


FIG. 42



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mmFATP4 DNA sequence

ATGCTGCTTGGAGCCTCTCTGGTGGGGGCGCTACTGTTCTCCAAGC
TAGTGCTGAAGCTGCCCTGGACCCAGGTGGGATTCTCCCTGTTGCT
CCTGTA CTTGGGGTCTGGTGGCTGGCGTTTCATCCGGGTCTTCATC
AAGACGGTCAGGAGAGATATCTTTGGTGGCATGGTGCTCCTGAAGG
TGAAGACCAAGGTGCGACGGTACCTTCAGGAGCGGAAGACGGTGCC
CCTGCTGTTTGCTTCAATGGTACAGCGCCACCCGGACAAGACAGCC
CTGATTTTTCGAGGGCACAGACACTCACTGGACCTTCCGCCAGCTGG
ATGAGTACTCCAGTAGTGTGGCCAACTTCCTGCAGGCCCGGGGCCT
GGCCTCAGGCAATGTAGTTGCCCTCTTTATGGAAAACCGCAATGAG
TTTGTGGGTCTGTGGCTAGGCATGGCCAAGCTGGGCGTGGAGGCGG
CTCTCATCAACACCAACCTTAGGCGGGATGCCCTGCGCCACTGTCT
TGACACCTCAAAGGCACGAGCTCTCATCTTTGGCAGTGAGATGGCC
TCAGCTATCTGTGAGATCCATGCTAGCCTGGAGCCCACACTCAGCC
TCTTCTGCTCTGGATCCTGGGAGCCCAGCACAGTGCCCGTCAGCAC
AGAGCATCTGGACCCTCTTCTGGAAGATGCCCCGAAGCACTGCCC
AGTCACCCAGACAAGGGTTTTACAGATAAGCTCTTCTACATCTACA
CATCGGGCACCAACGGGGCTACCCAAAGCTGCCATTGTGGTGCACAG
CAGGTATTATCGTATGGCTTCCCTGGTGTACTATGGATTCCGCATG
CGGCCTGATGACATTGTCTATGACTGCCTCCCCCTCTACCACTCAA
GCAGGAAACATCGTGGGGATTGGCAGTGCTTACTCCACGGGCATGAC
TGTGGTGATCCGGAAGAAGTTCTCAGCCTCCCGGTTCTGGGATGAT
TGTATCAAGTACAACCTGCACAGTGGTACAGTACATTGGCGAGCTCT
GCCGCTACCTCCTGAACCAGCCACCCCGTGAGGCTGAGTCTCGGCA
CAAGGTGCGCATGGCACTGGGCAACGGTCTCCGGCAGTCCATCTGG
ACCGACTTCTCCAGCCGTTTCCACATCCCCCAGGTGGCTGAGTTCT
ATGGGGCCCACTGAATGCAACTGTAGCCTGGGCAACTTTGACAGCCG
GGTGGGGGCTGTGGCTTCAATAGCCGCATCCTGTCCTTTGTGTAC
CCTATCCGTTTGGTACGTGTCAATGAGGATACCATGGAAGTATGATCC
GGGGACCCGATGGAGTCTGCATTCCCTGTCAACCAGGTCAGCCAGG
CCAGCTGGTGGGTGCGCATCATCCAGCAGGACCCTCTGCGCCGTTTC

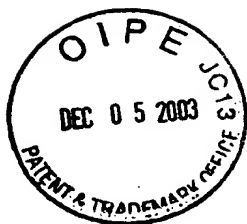
FIG. 43A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

GACGGGTACCTCAACCAGGGTGCCAACAACAAGAAGATTGCTAATG
ATGTCTTCAAGAAGGGGGACCAAGCCTACCTCACTGGTGACGTCCT
GGTGATGGATGAGCTGGGTTACCTGTACTTCCGAGATCGCACTGGG
GACACGTTCCGCTGGAAAGGGGAGAATGTATCTACCACTGAGGTGG
AGGGCACACTCAGCCGCCTGCTTCATATGGCAGATGTGGCAGTTTA
TGGTGTTGAGGTGCCAGGAAGTGAAGGCCGAGCAGGAATGGCTGCC
GTTGCAAGTCCCATCAGCAACTGTGACCTGGAGAGCTTTGCACAGA
CCTTGAAAAAGGAGCTGCCTCTGTATGCCCCGCCCATCTTCCTGCG
CTTCTTGCTGAGCTGCACAAGACAGGGACCTTCAAGTTCAGAAAG
ACAGAGTTGCGGAAGGAGGGCTTTGACCCATCTGTTGTGAAAGACC
CGCTGTTCTATCTGGATGCTCGGAAGGGCTGCTACGTTGCACTGGA
CCAGGAGGCCTATACCCGCATCCAGGCAGGCGAGGAGAAGCTGTGA
TTTCCCCCTACATCCCTCTGAGGGCCAGAAGATGCTGGATTGAGAG
CCCTAGCGTCCACCCAGAGGGTCCTGGGCAATGCCAGACCAAAGC
TAGCAGGGCCCCGCACCTCCGCCCTAGGTGCTGATCTCCCTCTCC
CAAAGTGCCAAGTGACTCACTGCCGCTTCCCCGACCCTCCAGAGGC
TTTCTGTGAAAGTCTCATCCAAGCTGTGTCTTCTGGTCCAGGCGTG
GCCCCCTGGCCCCAGGGTTTCTGATAGGCTCCTTTAGGATGGTATCT
TGGGTCCAGCGGGCCAGGGTGTGGGAGAGGAGTCACTAAGATCCCT
CCAATCAGAAGGGAGCTTACAAAGGAACCAAGGCAAAGCCTGTAGA
CTCAGGAAGCTAAGTGGCCAGAGACTATAGTGGCCAGTCATCCCAT
GTCCACAGAGGATCTTGGTCCAGAGCTGCCAAAGTGTACCTCTCC
CTGCCTGCACCTCTGGGGAAAAGAGGACAGCATGTGGCCACTGGGC
ACCTGTCTCAAGAAGTCAGGATCACACACTCAGTCCTTGTTTCTCC
AGGTTCCCTTGTTCTTGTCTCGGGGAGGGAGGGACGAGTGTCTGT
CTGTCCTTCCTGCCTGTCTGTGAGTCTGTGTTGCTTCTCCATCTGT
CCTAGCCTGAGTGTGGGTGGAACAGGCATGAGGAGAGTGTGGCTCA
GGGGCCAATAAACTCTGCCTTGACTCCTCTTAAAAAAAAAAAAAAAA
AA

FIG. 43B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mmFATP4 protein sequence

MLLGASLVGALLFSKLVCLKLPWTQVGFSLLLLLYLGSGGWRFIRVFI
KTVRRDIFGGMVLLKVKTKVRRYLQERKTVPLL FASMVQRHPDKTA
LIFEGTDTHWTFRQLDEYSSSVANFLQARGLASGNVVALFMENRNE
FVGLWLGMAKLGVEAALINTNLRRDALRHCLDTSKARALIFGSEMA
SAICEIHASLEPTLSLFCSGSWEPTVPVSTEHLDPILLEDAPKHLP
SHPDKGFTDKLFYIYTS GTTGLPKAAIVVHSRYR MASLVYYGFRM
RPDDIVYDCLPLYHSSRKHRGDWQCLLHG MTVVIRKKFSASRFWDD
CIKYNCTVVQYIGELCRYLLNQPPREAESRHKVRMALGNGLRQSIW
TDFSSRFHIPQVAEFYGATECNC SLGNFDSRVGACGFNSRILSFVY
PIRLVRVNEDTMELIRGPDGVCIPCQPGQPGQLVGR IIQQDPLRRF
DGYLNQGANNKKIANDVFKKGDQAYLTGDVL VMDELGYLYFRDRTG
DTRWKGENVSTTEVEGTLSRLLHMADVAVYGVEVPGTEGRAGMAA
VASPISNCDLESFAQTLKKELPLYARPIFLRFLPELHKTGT FKFQK
TELKKEGFDPSVVKDPLFYLDARKGCYVALDQEAYTRI QAGEEKL

FIG. 43C



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP1 full length DNA

```

      10      20      30      40
      |      |      |      |
TCGACCCACGGCGTCCGGGACCCCAAAGCAGAAGCCCGCA 40
CAGTAGGCACAGCGCACCCCAAGAAGGGTCCAGGAGTCTGC 80
AGAAACAGAAAGGTCCCCGGCCTCAGCCTCCTAGTCCCTG 120
CCTGCCTCCTGCCTGAGCTTCTGGGAGACTGAAGGCACGG 160
CTTGCAGCTTCAGGATGCGGGCTCCGGGTGCGGGCGCGGC 200

      210      220      230      240
      |      |      |      |
CTCGGTGGTCTCGCTGGCGCTGTTGTGGCTGCTGGGGCTG 240
CCGTGGACCTGGAGCGCGGCAGCGGCGCTCGGCGTGTACG 280
TGGGCAGCGGCGGCTGGCGCTTCTGCGCATCGTCTGCAA 320
GACCGCGAGGCGAGACCTCTTCGGTCTCTCTGTGCTGATC 360
CGCGTGCGCCTGGAGCTGCGGCGGCACCAGCGTGCCGGCC 400

      410      420      430      440
      |      |      |      |
ACACCATCCCGCGCATCTTTCAGGCGGTAGTGCAGCGACA 440
GCCCGAGCGCCTGGCGCTGGTGGATGCCGGGACCGGCGAG 480
TGCTGGACCTTTGCGCAGCTGGACGCCTACTCCAATGCGG 520
TAGCCAACCTCTTCCGCCAGCTGGGCTTCGCGCCGGGCGA 560
CGTGGTGGCCATCTTCTGGAGGGCCGGCCGGAGTTCTGTG 600

      610      620      630      640
      |      |      |      |
GGGCTGTGGCTGGGCCTGGCCAAGGCGGGCATGGAGGCCG 640
CGCTGCTCAACGTGAACCTGCGGCGCGAGCCCCTGGCCTT 680
CTGCCTGGGACCTCGGGCGCTAAGGCCCTGATCTTTGGA 720
GGAGAAATGGTGGCGGCGGTGGCCGAAGTGAGCGGGCATC 760
TGGGGAAAAGTTTGATCAAGTTCTGCTCTGGAGACTTGGG 800

      810      820      830      840
      |      |      |      |
GCCCGAGGGCATCTTGCCGGACACCCACCTCCTGGACCCG 840
CTGCTGAAGGAGGCCTCTACTGCCCCCTTGGCACAGATCC 880
CCAGCAAGGGCATGGACGATCGTCTTTTCTACATCTACAC 920
GTCGGGGACCACCGGGCTGCCCAAGGCTGCCATTGTCTGT 960
CACAGCAGGTACTACCGCATGGCAGCCTTCGGCCACCACG 1000

      1010      1020      1030      1040
      |      |      |      |
CCTACCGCATGCAGGCGGCTGACGTGCTCTATGACTGCCT 1040
GCCCTGTACCACTCGGCAGGAAACATCATCGGCGTGGGG 1080
CAGTGTCTCATCTATGGGCTGACAGTCGTCCTCCGCAAGA 1120
AATTCTCGGCCAGCCGCTTCTGGGACGACTGCATCAAGTA 1160
CAACTGCACGGTGGTTTCAGTACATCGGGGAGATCTGCCGC 1200

```

FIG. 44A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210 1220 1230 1240
TACCTGCTGAAGCAGCCGGTGC GCGAGGCGGAGAGGCGAC 1240
ACCGCGTGCGCCTGGCGGTGGGGAACGGGCTGCGTCCTGC 1280
CATCTGGGAGGAGTTACGGAGCGCTTCGGCGTACGCCAA 1320
ATCGGGGAGTTCTACGGCGCCACCGAGTGCAACTGCAGCA 1360
TTGCCAACATGGACGGCAAGGTCGGCTCCTGTGGTTTCAA 1400
1410 1420 1430 1440
CAGCCGCATCCTGCCCCACGTGTACCCCATCCGGCTGGTG 1440
AAGGTCAATGAGGACACAATGGAGCTGCTGCGGGATGCC 1480
AGGGCCTCTGCATCCCCTGCCAGGCCGGGGAGCCTGGCCT 1520
CCTTGTGGGTGAGATCAACCAACAGGACCCGCTGCGCCGC 1560
TTCGATGGCTATGTCAGCGAGAGCGCCACCAGCAAGAAGA 1600
1610 1620 1630 1640
TCGCCCACAGCGTCTTCAGCAAGGGCGACAGCGCCTACCT 1640
CTCAGGTGACGTGCTAGTGATGGATGAGCTGGGCTACATG 1680
TACTTCCGGGACCGTAGCGGGGACACCTTCCGCTGGCGAG 1720
GGGAGAACGTCTCCACCACCGAGGTGGAGGGCGTGCTGAG 1760
CCGCCTGCTGGGCCAGACAGACGTGGCCGTCTATGGGGTG 1800
1810 1820 1830 1840
GCTGTTCCAGGAGTGGAGGGTAAGGCAGGGATGGCGGCCG 1840
TCGCAGACCCCCACAGCCTGCTGGACCCCAACGCGATATA 1880
CCAGGAGCTGCAGAAGGTGCTGGCACCCCTATGCCCGGCC 1920
ATCTTCCTGCGCCTCCTGCCCCAGGTGGACACCACAGGCA 1960
CCTTCAAGATCCAGAAGACGAGGCTGCAGCGAGAGGGCTT 2000
2010 2020 2030 2040
TGACCCACGCCAGACCTCAGACCGGCTCTTCTTCCTGGAC 2040
CTGAAGCAGGGCCACTACCTGCCCTTAAATGAGGCAGTCT 2080
ACACTCGCATCTGCTCGGGCGCCTTCGCCCTCTGAAGCTG 2120
TTCCTCTACTGGCCACAACTCTGGGCCTGGTGGGAGAGG 2160
CCAGCTTGAGCCAGACAGCGCTGCCAGGGGTGGCCGCCT 2200

FIG. 44B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

```

                2610      2620      2630      2640
      _____
GGTCAGGCTGGTCTTGAACCTCCTGACCTCAGGTGATCCGC 2640
TGGCCTCGGCCTCCCAGAGTGCTGGGATTATAGGCGTGAG 2680
CCTCTGGCCCCGGCCTTTCTTTTCTCTCCTCTCCTGCC 2720
GAGAGTGGAACACACGTGTCCTGGGAGCTGCATCTTGTGT 2760
AGGGTCCAGCTGCTTTTGGGGACTGCAGGAATCATCTCCC 2800

                2810      2820      2830      2840
      _____
CTGGGCCCTGGACTCGGACTGGGGCCTCCCCACCTCCCTC 2840
TCGGCTGTGCCTTACGGAGCCCCAATCCAGGCCTCCTGTG 2880
GCTGTTGGGTTCCAGATGCTGCAGCTCCATGTGACTTCCA 2920
AGCAGGCCCTCCGCCCTCCCTGCTGAATGGAGGAGCCGGG 2960
GGTCCCCCAGGCCAACTGGAAAATCTCCCAGGCTAGGCCA 3000

                3010      3020      3030      3040
      _____
ATTGCCTTTTGCACCTTCCCCGTTCTCCTGTCACATTTCCCA 3040
GCCCCACCTTCCCCTCCTGATGCCCTGAAAGCTTCCGGAA 3080
TTGACTGTGACCACTTGGATGTCACCACTGTCAGCCCCCTG 3120
CCTTGATGTCCCCATTTAGCCATCTCCATGGAGCTCCTGC 3160
TGGAGGGCCCTGAACCCTGCACTGCGTGGCTGCCCAGCCA 3200

                3210      3220      3230      3240
      _____
GCTGCCTCCTGTCCTGGGAGGAGGCCTCCTGGGTGTCCTC 3240
ATCTGGTGTGTCTACTGGAGGGTCCCACAGGAGAGGCAGC 3280
AGAGGGGTGAGGGGAGGTCTCCTGCCGGGGGTTGGCCTCT 3320
CAAGCCTCAGGGGTCTAGCCTGTTGAATATACCCACCT 3360
GGTGGGTGGCCCCCTCCGATGTCCCCACTGATGGCTCTGAC 3400

                3410      3420      3430      3440
      _____
ACCGTGTTGGTGGCGATGTCCCAGACAATCCCACCAGGAC 3440
GGCCCAGACATCCCTACTGGCTTCGCTGGTGGCTCATCTC 3480
GAACATCCACGCCAGCCTTTCTGGGGCCGGCCACCCAGGC 3520
CGCCTGTCCGTCTGTCTCCTCCCTCCAGCAGCACCCCTGGC 3560
CCCTGGAGTGGTGGGGCCATGGCAAGAGACACCGTGGCGT 3600

                3610      3620      3630      3640
      _____
CTCATGTGAACTTTCTGCGGCACTGTGGTTTTATTTCCTA 3640
ATTGATTTAAGAAATAAACCTGAAGACCGTCTGGTGAAAA 3680
AAAAAAAAAAAAAA 3694

```

FIG. 44C



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

2610 2620 2630 2640
GGTCAGGCTGGTCTTGAACCTCCTGACCTCAGGTGATCCGC 2640
TGGCCTCGGCCTCCCAGAGTGCTGGGATTATAGGCGTGAG 2680
CCTCTGGCCCCGGCCTTTTCTTTTCTCTCCTCTCCTGCC 2720
GAGAGTGGAACACACGTGTCCTGGGAGCTGCATCTTGTGT 2760
AGGGTCCAGCTGCTTTTGGGGACTGCAGGAATCATCTCCC 2800
2810 2820 2830 2840
CTGGGCCCTGGACTCGGACTGGGGCCTCCCCACCTCCCTC 2840
TCGGCTGTGCCTTACGGAGCCCCAATCCAGGCCTCCTGTG 2880
GCTGTTGGGTTCCAGATGCTGCAGCTCCATGTGACTTCCA 2920
AGCAGGCCCTCCGCCCTCCCTGCTGAATGGAGGAGCCGGG 2960
GGTCCCCCAGGCCAACTGGAAAATCTCCCAGGCTAGGCCA 3000
3010 3020 3030 3040
ATTGCCTTTTGCACCTTCCCCGTTCTGTACATTTCCCCA 3040
GCCCCACCTTCCCCCTCCTGATGCCCTGAAAGCTTCCGGAA 3080
TTGACTGTGACCACTTGGATGTCACCACTGTCAGCCCCCTG 3120
CCTTGATGTCCCCATTTAGCCATCTCCATGGAGCTCCTGC 3160
TGGAGGGCCCTGAACCCTGCACTGCGTGGCTGCCAGCCA 3200
3210 3220 3230 3240
GCTGCCTCCTGTCTTGGGAGGAGGCCTCCTGGGTGTCTC 3240
ATCTGGTGTGTCTACTGGAGGGTCCCACAGGAGAGGCAGC 3280
AGAGGGGTCAGGGGAGGTCTCCTGCCGGGGGTTGGCCTCT 3320
CAAGCCTCAGGGGTTCTAGCCTGTTGAATATACCCACCT 3360
GGTGGGTGGCCCCCTCCGATGTCCCCACTGATGGCTCTGAC 3400
3410 3420 3430 3440
ACCGTGTTGGTGGCGATGTCCCAGACAATCCCACCAGGAC 3440
GGCCCAGACATCCCTACTGGCTTCGCTGGTGGCTCATCTC 3480
GAACATCCACGCCAGCCTTTCTGGGGCCGGCCACCCAGGC 3520
CGCCTGTCCGTCTGTCTCCTCCCTCCAGCAGCACCCCTGGC 3560
CCCTGGAGTGGTGGGGCCATGGCAAGAGACACCGTGGCGT 3600
3610 3620 3630 3640
CTCATGTGAACCTTCTCCTGGGCACTGTGGTTTTATTTCCTA 3640
ATTGATTTAAGAAATAAACCTGAAGACCGTCTGGTGAAAA 3680
AAAAAAAAAAAAA 3694

FIG. 44D



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP1 full length protein

```

      10      20      30      40
      |-----|
MRAPGAGAASVVSLLALLWLLGLPWTWSAAAALGVYVGSGG 40
WRFLRIVCKTARRDLFGLSVLIRVRLELRRHQRAGHTIPR 80
IFQAVVQRQPERLALVDAGTGECWTFQAQLDAYSNVANLF 120
RQLGFAPGDVVAIFLEGRPEFVGLWLGLAKAGMEAALLNV 160
NLRREPLAFCLGTSGAKALIFGGEMVAAVAESVGHGKSL 200
      210      220      230      240
      |-----|
IKFCSGDLGPEGILPDTHLLDPLLKEASTAPLAQIPSKGM 240
DDRLFYIYTS GTTGLPKAAIVVHSRYRMAAFGHHAYRMO 280
AADVLYDCLPLYHSAGNIIGVGQCLYGLTVVLRKKFSAS 320
RFWDDCIKYNCTVVQYIGEICRYLLKQPVREAERRHRVRL 360
AVGNGLRPAIWEEFTERFGVRQIGEFYGATECNCSIANMD 400
      410      420      430      440
      |-----|
GKVGSCGFNSRILPHVYPIRLVKVNEDTMELLRDAQGLCI 440
PCQAGEPGLLVGQINQODPLRRFDGYVSESATSKKIAHSV 480
FSKGDSAYLSGDVLYMDELGYMYFRDRSGDTFRWRGENVS 520
TTEVEGVLSRLLGQTDVAVYGVAVPGVEGKAGMAAVADPH 560
SLLDPNAIYQELQKVLAPYARPIFLRLLPQVDTTGTFKIQ 600
      610      620      630      640
      |-----|
KTRLQREGFDPRTSDRLFFLDLKQGHYLPNEAVYTRIC 640
SGAFAL 646

```

FIG. 45



Hs VLACS full length DNA

10 20 30 40
GGAATTCCAAAAAATAACGACTACACCTGCTCCGG 40
AGCCCGCGGCGGTACCTGCAGCGGAGGAGCTCTGTCTTCC 80
CCTTCATCTCACGCGAGCCCGGCGTCCCGCCGCGTGCGCC 120
CCGGCGCAGCCCGCCAGTCCGCCCGGAGCCCGCCAGTCG 160
CCGCGCTGCACGCCCGGGGTGAACCCTCTGCCCTCGCTGG 200
210 220 230 240
GACAGAGGGCCCCGCAGCCGTCATGCTTTCCGCCATCTAC 240
ACAGTCCTGGCGGGAGTGTGTTTCTGCCGCTCCTGGTGA 280
ACCTCTGCTGCCCATACTTCTTCCAGGACATAGGCTACTT 320
CTTGAAGGTGGCCGCCGTGGGCGGAGGGTGCGCAGCTAC 360
GGGCAGCGGCGGCCGGCGCGCACCATCTGCGGGCGTTCC 400
410 420 430 440
TGGAGAAAGCGCGCCAGACGCCACACAAGCCTTTTCTGCT 440
CTTCCGCGACGAGACTCTCACCTACGCGCAGGTGGACCGG 480
CGCAGCAATCAAGTGGCCCGGGCGCTGCACGACCACCTCG 520
GCCTGCGCCAGGGAGACTGCGTGGCGCTCCTTATGGGTAA 560
CGAGCCGGCCTACGTGTGGCTGTGGCTGGGGCTGGTGAAG 600
610 620 630 640
CTGGGCTGTGCCATGGCGTGCCTCAATTACAACATCCGCG 640
CGAAGTCCCTGCTGCACTGCTTCCAGTGCTGCGGGGCGAA 680
GGTGCTGCTGGTGTGCCAGAACTACAAGCAGCTGTGCGAA 720
GAGATACTGCCAAGCCTTAAAAAAGATGATGTGTCCATCT 760
ATTATGTGAGCAGAACTTCTAACACAGATGGGATTGACTC 800
810 820 830 840
TTTCCTGGACAAAGTGGATGAAGTATCAACTGAACCTATC 840
CCAGAGTCATGGAGGTCTGAAGTCACTTTTTTCCACTCCTG 880
CCTTATACATTTATACTTCTGGAACCACAGGTCTTCCAAA 920
AGCAGCCATGATCACTCATCAGCGCATATGGTATGGAAC 960
GGCCTCACTTTTGTAAAGCGGATTGAAGGCAGATGATGTCA 1000
1010 1020 1030 1040
TCTATATCACTCTGCCCTTTTACCACAGTGCTGCACTACT 1040
GATTGGCATTACGGATGTATTGTGGCTGGTGCTACTCTT 1080
GCCTTGCGGACTAAATTTTTCAGCCAGCCAGTTTTGGGATG 1120
ACTGCAGAAAATACAACGTCACTGTCAATTCAGTATATCGG 1160
TGAAGTGTTCGGTATTTATGCAACTCACCACAGAAACCA 1200

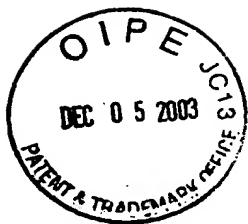
FIG. 46A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210 1220 1230 1240
AATGACCGTGATCATAAAGTGAGACTGGCACTGGGAAATG 1240
GCTTACGAGGAGATGTGTGGAGACAATTTGTCAAGAGATT 1280
TGGGGACATATGCATCTATGAGTTCTATGCTGCCACTGAA 1320
GGCAATATTGGATTTATGAATTATGCGAGAAAAAGTTGGTG 1360
CTGTTGGAAGAGTAAACTACCTACAGAAAAAAATCATAAC 1400
1410 1420 1430 1440
TTATGACCTGATTAAATATGATGTGGAGAAAGATGAACCT 1440
GTCCGAGATGAAAATGGATATTGCGTCAGAGTTCCCAAAG 1480
GTGAAGTTGGACTTCTGGTTTGCAAAATCACACAACCTAC 1520
ACCATTTAATGGCTATGCTGGAGCAAAGGCTCAGACAGAG 1560
AAGAAAAAACTGAGAGATGCTTTTAAGAAAGGAGACCTCT 1600
1610 1620 1630 1640
ATTTCAACAGTGGAGATCTCTTAATGGTTGACCATGAAAA 1640
TTTCATCTATTTCCACGACAGAGTTGGAGATACATTCCGG 1680
TGGAAAGGGGAAAAATGTGGCCACCACTGAAGTTGCTGATA 1720
CAGTTGGACTGGTTGATTTTGTCCAAGAAGTAAATGTTTA 1760
TGGAGTGCATGTGCCAGATCATGAGGGTCGCATTGGCATG 1800
1810 1820 1830 1840
GCCTCCATCAAAATGAAAGAAAACCATGAATTTGATGGAA 1840
AGAAACTCTTTTCAGCACATTGCTGATTACCTACCTAGTTA 1880
TGCAAGGCCCCCGGTTTCTAAGAATACAGGACACCATTGAG 1920
ATCACTGGAACCTTTTAAACACCGCAAAATGACCCTGGTGG 1960
AGGAGGGCTTTAACCCCTGCTGTCATCAAAGATGCCTTGTA 2000
2010 2020 2030 2040
TTTCTTGGATGACACAGCAAAAATGTATGTGCCTATGACT 2040
GAGGACATCTATAATGCCATAAGTGCTAAAACCCTGAAAC 2080
TCTGAATATTCCCAGGAGGATAACTCAACATTTCCAGAAA 2120
GAAACTGAATGGACAGCCACTTGATATAATCCAACCTTTAA 2160
TTTGATTGAAGATTGTGAGGAAATTTGTAGGAAATTTGC 2200
2210 2220 2230 2240
ATACCCGTAAAGGGGAGACTTTTTTAAATAACAGTTGAGTC 2240
TTTGCAAGTAAAAAGATTTAGAGATTATTATTTTTCAGTG 2280
TGCACCTACTGTTTGTATTTGCAAACTGAGCTTGTTGGAG 2320
GGAAGGCATTATTTTTTAAATACTTAGTAAATTAAATGA 2360
AC 2362

FIG. 46B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hs VLACS full length protein

```

      10      20      30      40
MLSAIYTVLAGLLFLPLLVLNLCPPYFFQDIGYFLKVAAVG 40
RRVRSYGQRRPARTILRAFLEKARQTPHKPFLLFRDETTLT 80
YAQVDRRSNQVARALHDHLGLRQGDCVALLMGNEPAYVWL 120
WGLVYKLGCMACLNYNIRAKSLLHCFQCCGAKVLLVSPE 160
LQAAVEEILPSLKKDDVSIYYVSRTSNTDGDIDSFLODKVDE 200
      210      220      230      240
VSTEPIPESWRSEVTFSTPALYIYTSGTTGLPKAAMITHQ 240
RIWYGTGLTFVSGLKADDVIYITLPFYHSAALLIGIHGCI 280
VAGATLALRTKFSASQFWDDCRKYNVTVIQYIGELLRYLC 320
NSPQKPNDRDHKYRLALGNGLRGDVGWROFVKRFGDICIYE 360
FYAATEGNIGFMNYARKVGAVGRVNYLQKKIITYDLIKYD 400
      410      420      430      440
VEKDEPVRDENGVCVRVPKGEVGLLVCKITQLTPFNGYAG 440
AKAQTEKKKLKRDVFKKGDLYFNSGDLLMVDHENFIYFHDR 480
VGDTFRWKGENVATTEVADTVGLVDFVQEVNVYGVHVPDH 520
EGRIGMASIKMKENHEFDGKKLFOHIADYLPYARPRFLR 560
IQDTIEITGTFKHKMTLVEEGFNPAVIKDALYFLDDTAK 600
      610      620      630      640
MYVPMTEDIYNAISAKTLKL 620
```

FIG. 47



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP3 partial DNA

```

      10      20      30      40
      |      |      |      |
AAGTTCTCGGCTGGTCAGTTCTGGGAAGATTGCCAGCAGC 40
ACAGGGTGACGGTGTTCAGTACATTGGGGAGCTGTGCCG 80
ATACCTTGTCAACCAGCCCCGAGCAAGGCAGAACGTGGC 120
CATAAGGTCCGGCTGGCAGTGGGCAGCGGGCTGCGCCCAG 160
ATACCTGGGAGCGTTTTGTGCGGCGCTTCGGGCCCCCTGCA 200

      210      220      230      240
      |      |      |      |
GGTGCTGGAGACATATGGACTGACAGAGGGCAACGTGGCC 240
ACCATCAACTACACAGGACAGCGGGGCGCTGTGGGGCGTG 280
CTTCCTGGCTTTACAAGCATATCTTCCCCTTCTCCTTGAT 320
TCGCTATGATGTCACCACAGGAGAGCCAATTGCGGACCCC 360
CAGGGGCACTGTATGGCCACATCTCCAGGTGAGCCAGGGC 400

      410      420      430      440
      |      |      |      |
TGCTGGTGGCCCCGGTAAGCCAGCAGTCCCCATTCCTGGG 440
CTATGCTGGCGGGCCAGAGCTGGCCCAGGGGAAGTTGCTA 480
AAGGATGTCTTCCGGCCTGGGGATGTTTTCTTCAACACTG 520
GGGACCTGCTGGTCTGCGATGACCAAGGTTTTCTCCGCTT 560
CCATGATCGTACTGGAGACACCTTCAGGTGGAAGGGGGAG 600

      610      620      630      640
      |      |      |      |
AATGTGGCCACAACCGAGGTGGCAGAGGTCTTCGAGGCC 640
TAGATTTTCTTCAGGAGGTGAACGTCTATGGAGTCACTGT 680
GCCAGGGCATGAAGGCAGGGCTGGAATGGCAGCCCTAGTT 720
CTGCGTCCCCCCCCACGCTTTGGACCTTATGCAGCTCTACA 760
CCCACGTGTCTGAGAACTTGCCACCTTATGCCCCGGCCCCG 800

      810      820      830      840
      |      |      |      |
ATTCCTCAGGCTCCAGGAGTCTTTGGCCACCACAGAGACC 840
TTCAAACAGCAGAAAGTTTCGGATGGCAAATGAGGGCTTCG 880
ACCCCAGCACCTGTCTGACCCACTGTACGTTCTGGACCA 920
GGCTGTAGGTGCCTACCTGCCCCCTCACAAC TGCCCGGTAC 960
AGCGCCCTCCTGGCAGGAAACCTTCGAATCTGAGAACTTC 1000

      1010      1020      1030      1040
      |      |      |      |
CACACCTGAGGCACCTGAGAGAGGAACTCTGTGGGGTGGG 1040
GGCCGTTGCAGGTGTACTGGGCTGTCAGGGATCTTTTCTA 1080
TACCAGAACTGCGGTCACTATTTTGTAATAAATGTGGCTG 1120
GAGCTGATCCAGCTGTCTCTGACAAAAAAAAAAAAAAAAAA 1160
AAAGGGCGGCCG 1173

```

FIG. 48



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP3 partial protein

10	20	30	40
KFSAGQFWEDCQOHRVTVFQYIGELCRYLVNQPPSKAERG 40			
HKVRLAVGSGLRPDTWERFVRRFGPLQVLETYGLTEGNVA 80			
TINYTGORGAVGRASWLYKHIFPFSLIRYDVTTGEPIRD 120			
QGHCMATSPGEPGLLVAPVSQOSPFLGYAGGPPELAQKLL 160			
KDVFRPGDVFFNTGDLLVCDDQGFLRFHRTGDTFRWKGE 200			
210	220	230	240
NVATTEVAEVFEALDFLOEVNVYGVTVPGHEGRAGMAALV 240			
LRPPHALDLMQLYTHYSENLPYARPRFLRLQESLATTET 280			
FKQQKVRMANEGFDPSTLSPLYVLDQAVGAYLPLTTARY 320			
SALLAGNLRI 330			

FIG. 49



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, et al.
Replacement Sheet



hsFATP4 full length

10 20 30 40
CGACCCACGCGTCCGGGCGGGCGGGGCCGGGCGGGCGGGCG 40
GGGCTGGCGGGGCGGCCGGGCCATGCAGGGCGCAGAGCCG 80
GCTAAACCCTGCTGAGACCCGGCTCCGTGCGTCCAGGGGC 120
GGCTAATGCCCCCTACGCTGTCTACGCTGCTGCAACCGGG 160
CCGCATCTGGACGGGGCGCCGCGGCGGAGCCGACGCCG 200
210 220 230 240
GGCCACAATGCTGCTTGGAGCCTCTCTGGTGGGGGTGCTG 240
CTGTTCTCCAAGCTGGTGTGAAACTGCCCTGGACCCAGG 280
TGGGATTCTCCCTGTTGTTCTCTACTTGGGATCTGGCGG 320
CTGGCGCTTCATCCGGGTCTTCATCAAGACCATCAGGCGC 360
GATATCTTTGGCGGCCTGGTCTCTCTGAAGGTGAAGGCAA 400
410 420 430 440
AGGTGCGACAGTGCCTGCAGGAGCGGCGGACAGTGCCCAT 440
TTTGTTCCTCTACCGTTTCGGCGCCACCCCGACAAGACG 480
GCCCTGATCTTCGAGGGCACAGATACCCACTGGACCTTCC 520
GCCAGCTGGATGAGTACTCAAGCAGTGTAGCCAACTTCT 560
GCAGGCCCGGGGCCTGGCCTCGGGCGATGTGGCTGCCATC 600
610 620 630 640
TTCATGGAGAACCGCAATGAGTTCGTGGGCCTATGGCTGG 640
GCATGGCCAAGCTCGGTGTGGAGGCAGCCCTCATCAACAC 680
CAACCTGCGGCGGGATGCTCTGCTCCACTGCCTCACCACC 720
TCGCGCGCACGGGCCCCCTTGTCTTTGGCAGCGAAATGGCCT 760
CAGCCATCTGTGAGGTCCATGCCAGCCTGGACCCCTCGCT 800
810 820 830 840
CAGCCTCTTCTGCTCTGGCTCCTGGGAGCCCCGGTGCGGTG 840
CCTCCAAGCACAGAACACCTGGACCCCTCTGCTGAAAGATG 880
CTCCCAAGCACCTTCCCAGTTGCCCTGACAAGGGCTTCAC 920
AGATAAACTGTTCTACATCTACACATCCGGCACCACAGGG 960
CTGCCCAAGGCCGCCATCGTGGTGCACAGCAGGTATTACC 1000
1010 1020 1030 1040
GCATGGCTGCCCTGGTGTACTATGGATTCCGCATGCGGCC 1040
CAACGACATCGTCTATGACTGCCTCCCCCTCTACCACTCA 1080
GCAGGAAACATCGTGGGAATCGGCCAGTGCCTGCTGCATG 1120
GCATGACGGTGGTGAATTCGGAAGAAGTTCTCAGCCTCCCG 1160
GTTCTGGGACGATTGTATCAAGTACAACCTGCACGATTGTG 1200

FIG. 50A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210	1220	1230	1240
CAGTACATTGGTGAACCTGTGCCGCTACCTCCTGAACCAGC 1240			
CACCGCGGGAGGCAGAAAACCAGCACCAGGTTTCGCATGGC 1280			
ACTAGGCAATGGCCTCCGGCAGTCCATCTGGACCAACTTT 1320			
TCCAGCCGCTTCCACATAACCCAGGTGGCTGAGTTCTACG 1360			
GGGCCACAGAGTGCAACTGTAGCCTGGGCAACTTCGACAG 1400			

1410	1420	1430	1440
CCAGGTGGGGGCCTGTGGTTTCAATAGCCGCATCCTGTCC 1440			
TTCGTGTACCCCATCCGGTTGGTACGTGTCAACGAGGACA 1480			
CCATGGAGCTGATCCGGGGGGCCGACGGCGTCTGCATTCC 1520			
CTGCCAGCCAGGTGAGCCGGGCCAGCTGGTGGGCCGCATC 1560			
ATCCAGAAAGACCCCCTGCGCCGCTTCGATGGCTACCTCA 1600			

1610	1620	1630	1640
ACCAGGGCGCCAACAACAAGAAGATTGCCAAGGATGTCTT 1640			
CAAGAAGGGGGACCAGGCCTACCTTACTGGTGATGTGCTG 1680			
GTGATGGACGAGCTGGGCTACCTGTACTTCCGAGACCGCA 1720			
CTGGGGACACGTTCCGCTGGAAAGGTGAGAACGTGTCCAC 1760			
CACCGAGGTGGAAGGCACACTCAGCCGCCTGCTGGACATG 1800			

1810	1820	1830	1840
GCTGACGTGGCCGTGTATGGTGTGCGAGGTGCCAGGAACCG 1840			
AGGGCCGGGCGGAATGGCTGCTGTGGCCAGCCCCACTGG 1880			
CAACTGTGACCTGGAGCGCTTTGCTCAGGTCTTGGAGAAG 1920			
GAACTGCCCCCTGTATGCGCGCCCCATCTTCCTGCGCCTCC 1960			
TGCCTGAGCTGCACAAAACAGGAACCTACAAGTTCCAGAA 2000			

2010	2020	2030	2040
GACAGAGCTACGGAAGGAGGGCTTTGACCCGGCTATTGTG 2040			
AAAGACCCGCTGTTCTATCTAGATGCCCAGAAGGGCCGCT 2080			
ACGTCCCGCTGGACCAAGAGGCCTACAGCCGCATCCAGGC 2120			
AGGCGAGGAGAAGCTGTGATTCCCCCATCCCTCTGAGGG 2160			
CCGGCGGATGCTGATCCGGAGCCCCAGGTTCCGCCCCAG 2200			

FIG. 50B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

2210	2220	2230	2240
AGCGGTCCTGGACAAGGCCAGACCAAAGCAAGCAGGGCCT 2240			
GGCACCTCCATCCTGAGGTGCTGCCCCCTCCATCCAAAACCT 2280			
GCCAAGTGACTCATTGCCTTCCCAACCCTTCCAGAGGCTT 2320			
TCTGTGAAAGTCTCATGTCCAAGTTCCGTCTTCTGGGCTG 2360			
GGCAGGCCCTCTGGTTCCCAGGCTGAGACTGACGGGTTTT 2400			
2410	2420	2430	2440
CTCAGGATGATGTCTTGGGTGAGGGTAGGGAGAGGACAAG 2440			
GGGTCACCGAGCCCTTCCCAGAGAGCAGGGAGCTTATAAA 2480			
TGAACACAGAGCAGAAGTCCCCAGACTCAGGAAGTCAACA 2520			
GAGTGGGCAGGGACAGTGGTAGCATCCATCTGGTGGCCAA 2560			
AGAGAATCGTAGCCCCAGAGCTGCCCAAGTTCACTGGGCT 2600			
2610	2620	2630	2640
CCACCCCCACCTCCAGGAGGGGAGGAGAGGACCTGACATC 2640			
TGTAAGGTGGCCCCCTGATGCCCCATCTACAGCAGGAGGTCA 2680			
GGACCACGCCCCCTGGCCTCTCCCCACTCCCCCATCCTCCT 2720			
CCCTGGGTGGCTGCCTGATTATCCCTCAGGCAGGGCCTCT 2760			
CAGTCCTTGTGGGTCTGTGTACCTCCATCTCAGTCTTGG 2800			
2810	2820	2830	2840
CCTGGCTATGAGGGGAGGAGGAATGGGAGAGGGGGGCTCAG 2840			
GGGCCAATAAACTCTGCCTTGAGTCCTCCTAAAAAAAAAAAA 2880			
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA 2907			

FIG. 50C

hsFATP4 full length protein

```

      10          20          30          40
  MLLGASLVGVLLFSKLVCLKLPWTQVGFSLFLYLGGSGWR 40
  FIRVFIKTIRRDIFGGLVLLKVKAKVROCLQERRTPILF 80
  ASTVRRHPDKTALIFEGTOTHWTFRQLDEYSSSVANFLQA 120
  RGLASGDVAAIFMENRNEFVGLWLGMAKLGVEAALINTNL 160
  RRDALLHCLTTSRARALVFGSEMASAICEVHASLDPSLSL 200

      210        220        230        240
  FCSGSWEPGA VPPSTEHLDP LLDAPKHL PSCPDKGFTDK 240
  LFYIYTS GTTGLPKAAIVVHSRYRMAALVYYGFRMRPND 280
  IVYDCLPLYHSAGNIVGIGQCL LHGMTVVIRKKFSASRFW 320
  DDCIKYNCTIVQYIGELCRYLLNQPPRE AENCHQVRMALG 360
  NGLRQSIWTFNSSRFHIPQVAEFYGATECNC SLGNFDSQV 400

      410        420        430        440
  GACGFNSRILSFVYPIRLVVRVNEDTMELIRGPDGVCIPCQ 440
  PGE PGQLVGRIIQKDPLRRFDGYLNQGANNKKIAKDVFKK 480
  GDAQYLTGOVLVMDELGYLYFRDRTGDTFRWKGENYSTTE 520
  VEGTLSRLLDMADVAVYGVEVPGTEGRAGMAAVASPTGNC 560
  DLERFAQVLEKELPLYARPIFLRLLPELHKTGT YKFQKTE 600

      610        620        630        640
  LRKEGFDP AIVKDPLFYLDAGKGRYVPLDQEAYSRIQAGE 640
  EKL 643

```

FIG. 51



hsFATP5(partial)

GTCGTTGGGATCCTCGGCTGCTTAGATCTCGGAGCCACCTGTGTTCT
GGCCCCCAAGTTCTCTACTTCCTGCTTCTGGGATGACTGTCGGCAGC
ATGGCGTGACAGTGATCCTGTATGTGGGCGAGCTCCTGCGATACTTG
TGTAACATTCCCCAGCAACCAGAGGACCGGACACATACAGTCCGCC
TGGCAATGGGCAATGGACTACGGGCTGATGTGTGGGGAGACCTTCC
AGCAGCGTTTCGGTCCTATTTTCGGATCTNGGGAAGTCTTACGGGCTT
CCACAGAAGGGCAACATGGGGCTTTAGTTCAAATATTGTTGGGGGC
GCTGCGGGGGCCCTGGGGGCAAAGATGGAGCTTGCCTCCTCCGAATG
CTGTCCCCCTTTGAGCTGGTGCAGTTCGACATGGAGGCGGCGGAGC
CTGTGAGGGACAATCAGGGCTTCTGCATCCCTGTAGGGCTAGGGGA
GCCGGGGCTGCTGTTGACCAAGGTGGTAAGCCAGCAACCCTTCGTG
GGCTACCGCGGGCCCCCGAGAGCTGTCGGAACGGAAGCTGGTGCGCA
ACGTGCGGCAATCGGGCGACGTTTACTACAACACCGGGGACGTACT
GGCCATGGACCGCGAAAGGCTTCCTCTACTTCCGCGACCGACTCGGG
GACACCTTCCGATGGAAGGGCGAGAACGTGTCCACGCACGAGGTGG
AGGGCGTGTTGTCGCAGGTGGACTTCTTGCAACAGGTTAACGTGTAT
GGCGTGTCGTGCCAGGTTGTGAGGGTAAGGTGGGCATGGCTGCTG
TGGCATTAGCCCCCGGCCAGACTTTCGACGGGGAGAAGTTGTACCA
GCACGTTTCGCGCTTGGCTCCCTGCCTACGCTACCCCCCATTTTCATCC
GCATCCAGGACGCCATGGAGGTCACCAGCACGTTCAAACCTGATGAA
GACCCGGTTGGTGCGTGAGGGGTTCAATGTGGGGATCGTGGTTGAC
CCTCTGTTTGTACTGGACAACCGGGCCCAGTCCTTCCGGCCCCCTGAC
GGCAGAAATGTACCAGGCTGTGTGTGAGGGAACCTGGAGGCTCTGA
TCACCTGGCCAACCCACTGGGGTAGGGATCAAAGCCAGCCACCCCC
ACCCCAACACACTCGGTGTCCCTTTTCATCCTGGGCCTGTGTGAATCC
CAGCCTGGCCATACCCTCAACCTCAGTGGGCTGGAAATGACAGTGG
GCCCTGTAGCAGTGGCAGAATAAACTCAGMTGYGTTACAGAAA

FIG. 52

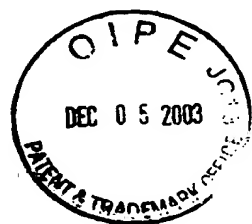


Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP5 partial protein

10 20 30 40
YVGILGCLDLGATCVLAPKFSTSCFWDDCRQHGVTVILYV 40
GELLRYLCNIPQQPEDRTHTVRLAMGNGLRADVWGDLPAA 80
FRSYFGSXEVLRASTEGOHGALVOILLGALRGPGGKDGAC 120
LLRMLSPFELVQFDMEAAEPVRDNQGFVIPVGLGEPGLLL 160
TKVVSQQPFVGYRGPRELSEKLVARNVROSGDVYYNTGDV 200
210 220 230 240
LAMDREGFLYFRDRLGDTFRWKGENVSTHEVEGVLSQVDF 240
LOQVNVYGVCPGCEGKVGMAAVALAPGQTFDGEKLYQHV 280
RAWLPAYATPHFIRIQDAMEVTSTFKLMKTRLVREGFNVG 320
IVVDPLFVLDNRAQSFRPLTAEMYQAVCEGTWRL 354

FIG. 53



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP6 full length DNA

```

      10          20          30          40
      | | | | | | | | | | | | | | | | | | | | | | | | | | | |
AACGGCAAGTAAGCGCAACGCAATTAATGTGAGTAGCTCA 40
CTCATTAGGCACCCCAGGCTTTACACTTTATGCTTCCGGG 80
CTCGTATGTTGTGTGGAATTGTGAGCGGATACCAATTTCA 120
CACAGGAACCAGCTATGACATGATTACGAATTTAATACGA 160
CTCACTATAGGGAATTTGGCCCTCGAGGCCAAGAATTCCG 200

      210        220        230        240
      | | | | | | | | | | | | | | | | | | | | | |
CACGAGGGGTGCTGAGCCCCCTGCGCGGTTTCTGGTGCGTA 240
GAGACTGTAAATCGCTGCGCTTCTCAGTCATCATCATCCC 280
AGCTTTTCCCGGCTCGAATTCAGCCTCCAACCTCAAGCTCG 320
CGGGAAAGACTACCTGAGAGGAGAAAAGCTTCTGTCCCTG 360
GACCTTCTTCTGAGGGTGGAGTCGGAGGCTCCCTGCTTTC 400

      410        420        430        440
      | | | | | | | | | | | | | | | | | | | | | |
CAGCCGCCCAGTGACCCAAGCTTAATCTTCAGCACC ACTT 440
GGGGCGACCTTTTTCGGTGCAAACCTACGATTCTGTTTCTC 480
AGGATTCCCTCCCCATCCCGCTTCGCCCCGGAAAAGCTGAC 520
AAGAACTTCAGGTGTAAGCCCTGAGTAGTGAGGATCTGCG 560
GTCTCCGTGGAGAGCTGTGCCTGGAAGAGAAGGACGCTGG 600

      610        620        630        640
      | | | | | | | | | | | | | | | | | | | | | |
TGGGGGCTGAGATCAGAGCTGTCTTCTGGCCCAGTTGCC 640
CCATGCTTCTGTGATGGCTAACAGTTCTAGGGGCTGGAAT 680
GGTCGTCTTGC ACTTCTTGCAAGAACTCCTGTTCCCTTAC 720
TTTTGGGATGACTTCTGGTTCTGTGTTGAAGGTGGTGCTCA 760
TTATAATTGGGCTGAAGAAGTATGAAAAGAGAGGGGAGCT 800

      810        820        830        840
      | | | | | | | | | | | | | | | | | | | | | |
GGTGACTGTGCTGGATAAATTCTTGAGTCATGCCAAAAGA 840
CAACCTCGGAAACCTTTTCATCATCTATGAGGGAGACATCT 880
ACACCTATCAGGATGTAGACAAAAGGAGCAGCAGAGTGCC 920
CCATGTCTTCTGAACCATTCCTCTCTGAAAAAGGGGGAC 960
ACGGTGGCTCTGCTGATGAGCAATGAGCCGGACTTCGTT 1000

      1010       1020       1030       1040
      | | | | | | | | | | | | | | | | | | | | | |
ACGTGTGGTTTCGGCCTCGCCAAGCTGGGCTGCGTGCGTGGC 1040
CTTTCTCAACACCAACATTTCGCTCCAACTCCCTCCTGAAT 1080
TGCATCCGCGCCTGTGGGCCAGAGCCCTAGTGCGTGGGCG 1120
CAGATTTGCTTGGAACGGTAGAAGAAATCCTTCCAAGCCT 1160
CTCAGAAAATATCAGTGTTTGGGGGATGAAAGATTCTGTT 1200

```

FIG. 54A



hsFATP6 full lenght.DNA

```

      1210      1220      1230      1240
      | | | | | | | | | | | | | | | |
CCACAAGGTGTAATTTCACTCAAAGAAAACTGAGCACCT 1240
CACCTGATGAGCCCGTGCCACGCAGCCACCATGTTGTCTC 1280
ACTCCTCAAGTCTACTTGTCTTTACATTTTACCTCTGGA 1320
ACAACAGGTCTACCAAAAGCAGCTGTGATTAGTCAGCTGC 1360
AGGTTTTAAGGGGTCTGCTGTCCTGTGGGCTTTTGTTG 1400

      1410      1420      1430      1440
      | | | | | | | | | | | | | | | |
TACTGCTCATGACATTGTTTATATAACCCTTCCTCTGTAT 1440
CATAGTTCAGCAGCTATCCTGGGAATTTCTGGATGTGTTG 1480
AGTTGGGTGCCACTTGTGTGTTAAAGAAGAAATTTTCAGC 1520
AAGCCAGTTTTGGAGTGACTGCAAGAAGTATGATGTGACT 1560
GTGTTTCAGTATATTGGAGAAGCTTTGTCGCTACCTTTGCA 1600

      1610      1620      1630      1640
      | | | | | | | | | | | | | | | |
AACAATCTAAGAGAGAAGGAGAAAAGGATCATAAGGTGCG 1640
TTTGGCAATTGGAAATGGCATACGGAGTGATGTATGGAGA 1680
GAATTTTGTAGACAGATTTGGAAATATAAAGGTGTGTGAAC 1720
TTTATGCAGCTACCGAATCAAGCATATCTTTCATGAAC TA 1760
CACTGGGAGAATTGGAGCAATTGGGAGAACAAATTTGTTT 1800

      1810      1820      1830      1840
      | | | | | | | | | | | | | | | |
TACAACTTCTTTCCACTTTTGACTTAATAAAGTATGACT 1840
TTCAGAAAGATGAACCCATGAGAAATGAGCAGGGTTGGTG 1880
TATTCATGTGAAAAAAGGAGAACCTGGACTTCTCATTTCT 1920
CGAGTGAATGCAAAAAATCCCTTCTTTGGCTATGCTGGGC 1960
CTTATAAGCACACAAAAGACAAATTGCTTTGTGATGTTTT 2000

      2010      2020      2030      2040
      | | | | | | | | | | | | | | | |
TAAGAAGGGAGATGTTTACCTTAATACTGGAGACTTAATA 2040
GTCCAGGATCAGGACAATTTCTTTATTTTTGGGACCGTA 2080
CTGGAGACACTTTCAGATGGAAAGGAGAAAATGTCGCAAC 2120
CACTGAGGTTGCTGATGTTATTGGAATGTTGGATTTCATA 2160
CAGGAAGCAAACGTCTATGGTGTGGCTATATCAGGTTATG 2200

      2210      2220      2230      2240
      | | | | | | | | | | | | | | | |
AAGGAAGAGCAGGAATGGCTTCTATTATTTTAAACCAAA 2240
TACATCTTTAGATTTGGAAAAAGTTTATGAACAAGTTGTA 2280
ACATTTCTACCAGCTTATGCTTGTCCACGATTTTAAAGAA 2320
TTCAGGAAAAAATGGAAGCAACAGGAACATTCAAATATT 2360
GAAGCATCAGTTGGTGGGAAGATGGATTTAATCCACTGAAA 2400

      2410      2420      2430      2440
      | | | | | | | | | | | | | | | |
ATTTCTGAACCACTTTACTTCATGGATAACTTGAAAAAGT 2440
CTTATGTTCTACTGACCAGGGAACTTTATGATCAAATAAT 2480
GTTAGGGGAAATAAAACTTTAAGATTTTATATCTAGAAC 2520
TTTCATATGCTTTCTTAGGAAGAGTGAGAGGGGGGTATAT 2560
GATTCCTTATGAAATGGGGAAAGGGAGCTAACATTAATTA 2600

```

FIG. 54B



hsFATP6 full lenght.DNA

```

      2610      2620      2630      2640
      | | | | | | | | | | | | | | | | | |
TGCATGTACTATATTTTCCTTAATATGAGAGATAATTTTTT 2640
AATTGCATAAGAATTTTAATTTCTTTTAATTGATATAAAC 2680
ATTAGTTGATTATTCTTTTTATCTATTTGGAGATTCAGTG 2720
CATAACTAAGTATTTTCCTTAATACTAAAGATTTTAAATA 2760
ATAAATAGTGGCTAGCGGTTTGGACAATCACTAAAAATGT 2800
      2810      2820      2830      2840
      | | | | | | | | | | | | | | | | | |
ACTTTCTAATAAGTAAAATTTCTAATTTTGAATAAAAGAT 2840
TAAATTTTACTGAAAAAAAAAAAAAAAAAAAAAATTGGCG 2880
GCCGC 2885
```

FIG. 54C



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP6 full length protein

10 20 30 40
MLLSWLTVLGAGMVVLHFLQKLLFPYFWDDFWFLKVVL I 40
IIRLKKEYEKRGE LVTVLQKFLSHAKRQPRKPFIIYEGDIY 80
TYQDVDRSSRVVAHVFLNHSSLLKKGDTVALLMSNEPQFVH 120
VWFGGLAKLGCYVAF LNTNIRSNLLNCIRACGPRLVVG A 160
DLLGTVEEILPSLSENISVWGMKDSVPGGVISLKEKLSTS 200
210 220 230 240
PDEPVPRSHHVVSLLKSTCLYIFTSGTTGLPKAAVISQLQ 240
VLRGSAVLWAFGCTAHDIVYITLPLYHSSAAILGISGCV E 280
LGATCVLKKKFSASQFWSQCKKYDVTVFQYIGELCRYLCK 320
QSKREGEKDHKVRLAIGNGIRSDVWREFLDRFGNIKVC E L 360
YAATESSISFMNYTGRIGAIGRTNLFYKLLSTFDLIKYD F 400
410 420 430 440
QKDEPMRNEGGWC I HVKKGEFGLLISRVNAKNFFFGYAGP 440
YKHTKDKLLCDVFKKGDVYLNLTGDLIVQDQDNFLXFWDRT 480
GDTFRWKGENVATTEVADVIGMLDFICEANVYGVAISGYE 520
GRAGMASIILKPNTSLDLEKVYEQVVTFLPAYACPRFLR I 560
QEKMEATGTFKLLKHQLVEDGFNPLKISEPLYFMDNLKKS 600
610 620 630 640
YVLLTRELYDQIMLGEIKL 619

FIG. 55



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mFATP1 full length DNA

```

      10      20      30      40
      |      |      |      |
AAGTTCCCACTCCAGACTTCTGCGAGAACCCGTGAGGAAG 40
CAGCGAGAACC GG GGT T T GCAAGCCAGAGAAGGATGCGG 80
ACTCCGGGAGCAGGAACAGCCTCTGTGGCCTCATTGGGGC 120
TGCTTTGGCTTCTGGGACTTCCGTGGACCTGGAGCGCGGC 160
GGCGGCGTTCCGGTGTGTACGTGGGTAGCGGTGGCTGGCGA 200

      210      220      230      240
      |      |      |      |
TTTCTGCGTATCGTCTGCAAGACGGCGAGGCGAGACCTCT 240
TTGGCCTCTCTGTTCTGATCCGCGTGCGGCTAGAGCTACG 280
ACGACACCGGCGAGCAGGAGACACGATCCCACGCATCTTC 320
CAGGCCGTGGCCCAGCGACAGCCGGAGCGCCTGGCGCTGG 360
TAGATGCGAGTAGCGGTATCTGCTGGACCTTCGCACAGCT 400

      410      420      430      440
      |      |      |      |
AGACACCTACTCCAATGCTGTGGCCAATCTGTTCCCTCCAG 440
CTGGGCTTTGCGCCAGGCGATGTGGTGGCTGTGTTCTTG 480
AAGGCCGGCCCCGAGTTCGTGGGACTGTGGCTGGGCCTGGC 520
CAAGGCCGGTGTAGTGGCTGCGCTTCTCAATGTCAACCTG 560
AGGCGGGAGCCCCCTTGCTTCTGCTTGGGCACATCAGCTG 600

      610      620      630      640
      |      |      |      |
CCAAGGCCCTCATTTATGGCGGGGAGATGGCAGCGGCGGT 640
GGCGGAGGTGAGTGAGCAGCTGGGGAAGAGCCTGCTCAAG 680
TTCTGCTCTGGAGATCTGGGGCCTGAGAGCGTCCTGCCTG 720
ACACGCAGCTTCTGGACCCCATGCTTGCTGAGGCGCCAC 760
CACACCCCTGGCACAGGCCCCAGGCAAGGGCATGGATGAT 800

      810      820      830      840
      |      |      |      |
CGGCTATTTTACATCTATACTTCTGGGACCACCGGACTTC 840
CTAAGGCGGCCATTGTGGTGCACAGCAGGTACTACCGCAT 880
CGCAGCCTTCGGCCACCATTCCTACAGCATGCGGGCCAAC 920
GATGTGCTCTATGACTGCCTACCTCTCTACCACTCAGCAG 960
GGAACATCATGGGCGTGGGACAGTGTATCATCTACGGGTT 1000

      1010      1020      1030      1040
      |      |      |      |
AACGGTGGTACTGCGCAAGAAGTTCTCCGCCAGCCGCTTC 1040
TGGGACGACTGTGTCAAATATAATTGCACGGTAGTGCACT 1080
ACATCGGTGAAATATGCCGCTACCTGCTAAGGCAGCCGGT 1120
TCGCGATGTAGAGCGGCGGCACCGCGTGCGCCTGGCCGTG 1160
GGTAACGGACTGCGGCCAGCCATCTGGGAGGAGTTCACGC 1200

```

FIG. 56A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210	1220	1230	1240
AGGGTTTCGGTGTGCGACAGATTGGCGAGTTCTACGGCGC 1240			
CACCGAATGCAACTGCAGCATTGCCAACATGGACGGCAAG 1280			
GTCGGCTCCTGCGGCTTCAACAGCCGTATCCTCACGCATG 1320			
TGTACCCCATCCGTCTGGTCAAGGTCAACGAGGACACGAT 1360			
GGAGCCACTGAGGGACTCCCAAGGCCTCTGCATCCCGTGC 1400			
1410	1420	1430	1440
CAGCCCCGGGGAACCTGGGCTTCTCGTGGGCCAGATCAACC 1440			
AGCAAGACCCTCTGCGGCGCTTCGATGGCTATGTTAGTGA 1480			
CAGCGCCACCAACAAGAAGATTGCCACAGCGTGTTCCGA 1520			
AAGGGGGACAGCGCCTACCTTTCAGGTGACGTGCTAGTGA 1560			
TGGACGAGCTGGGGTACATGTACTTCCGTGACCGCAGCGG 1600			
1610	1620	1630	1640
GGATACCTTCCGATGGCGCGGCGAGAACGTATCCACCACG 1640			
GAGGTGGAAGCCGTGCTGAGCCGCTGTTGGGCCAGACGG 1680			
ACGTGGCTGTGTATGGAGTGGCTGTGCCAGGAGTGGAGGG 1720			
GAAAAGCGGCATGGCGGCCATTGCAGACCCCCACAACCAG 1760			
CTGGACCCTAACTCAATGTACCAGGAATTGCAGAAGGTTT 1800			
1810	1820	1830	1840
TTGCATCCTATGCCCAGCCCATCTTCCTGCGTCTTCTGCC 1840			
CCAAGTGGATACAACAGGCACCTTCAAGATCCAGAAGACC 1880			
CGACTACAGCGTGAAGGCTTTGACCCCCGCCAGACCTCAG 1920			
ACCGGCTCTTCTTTCTAGACCTGAAACAGGGACGCTACCT 1960			
ACCCCTGGATGAGAGAGTCCATGCCCGCATCTGCGCAGGC 2000			
2010	2020	2030	2040
GACTTCTCACTCTGAGCCTGGTGAGTGGGATGGCCCTGGA 2040			
CTTGTGAGACCAGGGAGCCGGACACCCCTGTTTCAGGTGTT 2080			
TCTCCTGCCTGGCCACGTGGCCAGCAGCACCTGTGGGTGC 2120			
AGGAAACTGGAACCTGAGTGGCCGGGTGTCCCTTTCTAC 2160			
AACCCACCATGCACACATCTAGCCTCTGCCTTGGTCTTTT 2200			

FIG. 56B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

2210 2220 2230 2240
TCTCCATCTCTTTCTCCTCCGTGCCCAGCAGGAGCCCCACAG 2240
ACACATTGGCTGCTGTGTCTGCTGAGTGGGACCGGTGTCTA 2280
GGGGTCCATGCTGCAGGCTGTGACCCGCACTGGTGCCAC 2320
CTCCCTTCCCCATTGTGCCTTAGGTTCTCCACTGTGCGC 2360
CGGTGAAGCAAGTGGGGACCCACATAGCTGTTGTCCCTGC 2400
2410 2420 2430 2440
TGAGGGTTGGTAGCAAATGCACCCTCATGTCAGCTGGGAG 2440
ACACATGCAGTCTCCCACTGACCCCAATCAACTGAAGAT 2480
ACTGTTTTGTATTATTGTTTTGAGATAGGGTCTCACTGTG 2520
GAGGCCAAGCTGGCCTCAGGCTCACCCTCTACTGCCTCC 2560
GGGCACCAGCCTGCAGTTTGATGACATGTATGCACTATTG 2600
2610 2620 2630 2640
TTCTAAGGGTCTTCTGAGTCCCTGCTTTCCCCTCATGTCC 2640
TAAACCTTCCAGAACTGACTCTGATCACTTGGATGTAGC 2680
TAGTGTTGGCCCTGCCCACGTGTGTCAATTCAGGGGTCCC 2720
CAGGCATCATCTCTGGAGGCCCTAACCTTGGCAAAGCTTG 2760
GATGTCCTCACATCACAGCAGGAGACCCAGGAAGGTTGCT 2800
2810 2820 2830 2840
GTGGTGTCTCTTGGGCACCCCTGGCGGCAGCCGTGGACAT 2840
GCTTCCCTGCTGTGATAGCCCAAACTGTTGCCTATGACAT 2880
TTGAGGTCTACCCTTCTGGCTGCCATGGTCCCCATTGAGA 2920
TCTTTGGTGACTCACCTCAGCCACCAAGCCAGGCCTCTGC 2960
CTTCCTTCAGCTCTAAGGGCATGAAGGGTGTGGACAGAGC 3000
3010 3020 3030 3040
AGCCACAGGCTGCCCACAGTCACCCACATGCAAGTGTTAT 3040
TTCCTTGTTTGTGTTTTAAAAAATAAACATGCTGAGCCTTG 3080
AAAAAAAAAAAAAAAAAAAA 3098

FIG. 56C



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mFATP1 full length protein

```

      10      20      30      40
      |-----|
MRTPGAGTASVASLGLLWLLGLPWTWSAAAAFGVYVGSGG 40
WRFLRIVCKTARRDLFGLSVLIRVRLELRRHRRAGDTIPR 80
IFQAVAQRQPERLALVDASSGICWTFAQLDTYSNAVANLF 120
LQLGFAPGDVVAVFLEGRPEFVGLWLGLAKAGVVAALLNV 160
NLRREPLAFCLGTSAAKALIYGGEMAAVAEVSEQLGKSL 200
      210      220      230      240
      |-----|
LKFCSGDLGPESVLPDTQLLDPLAEAPTTPLAQAPGKGM 240
DDRLFYIYTS GTTGLPKAAIVVHSRYRRIA AFGHHSYSMR 280
ANDVLYDCLPLYHSAGNIMGVGQCI IYGLTVVLRKKFSAS 320
RFWDDCVKYNCTVVQYIGEICRYLLRQPV RDVERRHRVRL 360
AVGNGLRPAIWEEFTQGGFVGRQIGEFYGATECNC SIANMD 400
      410      420      430      440
      |-----|
GKVGSCGFNSRILTHVYPIRLVKVNEDTMEPLRDSQGLCI 440
PCQPGEPGLLVGQINQQDPLRRFDGYVSDSATNKKIAHSV 480
FRKGDSAYLSGDVLMDELGYMYFRDRSGDTFRWRGENVS 520
TTEVEAVLSRLLGQTDVAVYGVAVPGVEGKSGMAA!ADPH 560
NQLDPNSMYQELQKVLASYAQPIFLRLLPQVDTTGT FKI Q 600
      610      620      630      640
      |-----|
KTRLQREGFDPROTS DRLFFLDLKQGRYLPLDERVHARIC 640
AGDFSL 646
```

FIG. 57

mVLACS (FATP2) full length DNA



10 20 30 40
GACACAGTACTGCCGATGTTGGACAGAGGATCGCTTAACA 40
GAACGAAATCTCAAAACAAATTAACAGGACCCGGTTGCTT 80
GATTTCCCAAATCAGAAAAGGCTCGAAATGTCTAGAGGGG 120
CTGACTGATGCAGCGGTGACCCGGACTGGAGACAGTTGGA 160
CGCGATCATCTCTGGTGCTTTTGTTC AACCTTGAAACCTT 200
210 220 230 240
CGCCACAGGAGACTTGCCTGAGCAGAGAAGCAAACGTGGA 240
GAAACAAAGAGAGATCTAGCGAAAAGCCTCTGGGACCAAG 280
GAGGGGAGGTGGGACTCTGGGTTGGCGGTGGCACCTGCTG 320
CCGGCTATTAATAATAGGGTCGCGATGCGTTTATAAGGTG 360
TTTGATTAAACAAAGACTCTATGAGAGAAGAATAACTAGC 400
410 420 430 440
AACAGCCCCACGTCTGAGTCGTCGCCCTCCGACCTTTTTTCA 440
ACGTGGGTTCTTTGGGCCGAGCGTCGTTTGCCGAGAACTA 480
GATCTCACCTGACCCCAGACGCTGAAAACAAGCGCTGTGG 520
CATCCTGGGCCACCCAAGCTGACAAGGGCGCGCCCCCTGA 560
GCACACGAGGTGCCCCACGAGGGGGAGGGACCCACAGCCG 600
610 620 630 640
TCCCGCCCGCACCGCGGTGTCCGCTGCGGGCACCTGCAGC 640
CGAGCCGCCACCCGCGAGTCGCGAGCGCGTCCGGCGGCCGAA 680
CCCGGTGCTCAGCTCGTCAGCACCTGCTCTGCTTCTCTCC 720
CGCCCGCCGCGCGCTGCACGCCTCGAGCGCTCCCTCGGC 760
CCCGGCGGGGACCGGGGACCCGCGAGCCACCGCCATGCTG 800
810 820 830 840
CCTGTGCTCTACACCGGCCTGGCGGGGCTGCTGCTGCTGC 840
CTCTGCTGCTCACCTGCTGCTGCCCCTACCTCCTCCAGGA 880
CGTGCGGTTCTTCTGCAACTGGCCAACATGGCCCGGCAG 920
GTGCGCAGCTACCGGCAGCGGCGACCCGTGCGCACCATCC 960
TGCATGTCTTCTTGAGCAAGCGCGCAAGACCCCGCACAA 1000
1010 1020 1030 1040
GCCCTTCTGCTGTTTCGCGACGAGACGCTTACCTACGCC 1040
CAGGTAGACCGGCGCAGCAACCAAGTAGCGCGAGCGCTGC 1080
ATGATCACCTGGGCCTGCGGCAGGGGGATTGCGTGGCCCT 1120
CTTCATGGGCAATGAGCCGGCCTACGTGTGGCTCTGGCTG 1160
GGACTGCTCAAACCTGGGCTGTCCCATGGCGTGCCTCAACT 1200

FIG. 58A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210 1220 1230 1240
ACAACATCCGTGCCAAGTCTCTGCTACACTGCTTTTCAGTG 1240
CTGCGGGGCGAAGGTGCTGCTGGCCTCCCCAGAGCTACAC 1280
GAAGCTGTCGAGGAGGTTCTTCCAACCCTGAAAAAGGAGG 1320
GCGTGTCGGTCTTCTACGTAAGCAGAAGTTCTAACACTAA 1360
TGGCGTGGACACAGTACTGGACAAAGTAGACGGGGTGTCTG 1400
1410 1420 1430 1440
GCGGACCCCATCCCGGAGTCGTGGAGGTCTGAAGTCACGT 1440
TCACCACACCCGCAGTCTACATATATACTTCGGGCACCAC 1480
AGGTCTTCCAAAGGCTGCAACCATTAATCACCATCGCCTC 1520
TGGTATGGGACCAGCCTTGCCCTGAGGTCCGGAATTAAGG 1560
CTCATGACGTCATCTACACCACCATGCCCTGTACCACAG 1600
1610 1620 1630 1640
CGCGGCGCTCATGATTGGCCTCCACGGATGCATTGTGGTT 1640
GGGGCTACATTTGCTTTGCGGAGCAAATTTTCAGCCAGCC 1680
AGTTTTGGGACGACTGCAGGAAATACAACGCCACTGTCTAT 1720
TCAGTACATCGGTGAACTGCTTCGGTACCTCTGCAACACG 1760
CCCCAGAAACCAAATGACCGGGACCACAAAGTGAAAATAG 1800
1810 1820 1830 1840
CACTAGGAAATGGCTTACGAGGAGATGTGTGGAGAGAGTT 1840
CATCAAGAGATTTGGGGACATTCACATTTATGAGTTCTAC 1880
GCTTCCACTGAAGGCAACATTGGATTTATGAACTATCCAA 1920
GAAAAATCGGAGCTGTTGGAAGAGAAAATTACCTACAAAA 1960
AAAAGTTGTAAGGCACGAGCTGATCAAGTATGACGTGGAG 2000
2010 2020 2030 2040
AAGGATGAGCCTGTCCGTGATGCAAATGGATATTGCATCA 2040
AAGTCCCCAAAGGAGAGGTTGGACTCTTGATTTGCAAAAT 2080
CACAGAGCTCACACCATTTTTTGGCTATGCTGGAGGAAAG 2120
ACCCAGACAGAGAAGAAAAAGCTCAGAGATGTTTTTAAGA 2160
AAGGAGACGTCTACTTCAACAGTGGCGATCTCCTGATGAT 2200

FIG. 58B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

```

      2210      2220      2230      2240
      | | | | | | | | | | | | | | | | | |
CGACCGTGAAAAATTTTCATCTATTTTCACGACAGAGTTGGA 2240
GACACCTTCCGGTGGAAGGAGAGAATGTAGCTACCACGG 2280
AAGTCGCTGACATTGTGGGACTGGTAGATTTTGTGGAAGA 2320
AGTGAATGTTTACGGTGTGCCCCGTGCCAGGTCATGAAGGT 2360
CGCATCGGGATGGCCTCGATCAAGATGAAAGAAAACACTACG 2400

      2410      2420      2430      2440
      | | | | | | | | | | | | | | | | | |
AGTTCAATGGAAAGAAACTCTTTCAGCACATCTCGGAGTA 2440
CCTGCCCAGTTACTCGAGGCCTCGGTTCTTGAGAATACAA 2480
GATACCATTGAGATCACCGGGACTTTTAAACACCGCAAAG 2520
TGACCCTGATGGAAGAGGGCTTTAACCCTCAGTCATCAA 2560
AGATACCTTGTATTTTCATGGATGACACAGAAAAACATAC 2600

      2610      2620      2630      2640
      | | | | | | | | | | | | | | | | | |
GTGCCCATGACTGAGGACATTTATAATGCCATAATTGATA 2640
AGACTCTGAAGCTCTGAATGTTGCCTGGCTCCTAACACTT 2680
CCAGAAAGAAACACAATAGGCCTAGCATAGCCCCTTCACA 2720
TGTGTAATCCAACCTTTAACTTGATTAAAGGTTATAGGTGT 2760
GATTTTTCCTAGGAAATTATTCATTTAAAGGACAATTGTT 2800

      2810      2820      2830      2840
      | | | | | | | | | | | | | | | | | |
TGTTTGTTTGTTTGTTTTTTATTAATTACACCAGAACGTT 2840
TGCAAGTAAAAAGATTTAAAGTCACTTATTTTTCAATGTG 2880
CACCTGCCATTTGTCCTTGCAAACCTTAGCTTCTTGGAGAG 2920
AGGGCCTTATTTTTTTTAAAGACATAATAAACTATGTAAAC 2960
ACT 2963
```

FIG. 58C



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mVLACS (FATP2) full length protein

10	20	30	40
MLPVLYTGLAGLLLLPLLLTCCCPYLLQDVRFLLQLANMA 40			
ROVRSYRQRRPVRTLHVFLAQARKTPHKPFLFRDETTLT 80			
YAQVDRRSNQVARALHDHLGLRQGDVALFMGNEPAYVWL 120			
WLGLLLKLGCPMACLNYNIRAKSLLHCFQCCGAKVLLASPE 160			
LHEAVEEVLP TLKKEGVS VFYVSRTSNTNGVDTVLDKVDG 200			
210	220	230	240
VSADPIPESWRSEVTFTTPAVYIYTS GTTGLPKAATINHH 240			
RLWYGTSALALRSGIKAHDVIYTTMPLYHSAALMIGLHGCI 280			
VVGATFALRSKFSASQFWDDCRKYNATVIOYIGELLRYLC 320			
NTPQKPNDRDHKVKIALGNGLRGD VWREFIKRFGDIHIYE 360			
FYASTE GNIGFMNYP RKIGAVGRENYLQKKVVRHEL IKYD 400			
410	420	430	440
VEKDEPVRDANGYCIKVPKGEVGLLICKITELTPFFGYAG 440			
GKTQTEKKKL RDVFKKGDVYFNSGDLLMIDRENFIYFHDR 480			
VGDTFRWKGENVATTEVADIVGLVDFVEEVNVYGVVPVGH 520			
EGRIGMASIKMKENYEFNGKKLFOHISEYLPYSRPRFLR 560			
IODTIEITGTFKHKRVTLMEEGFNPSVIKDTLYFMDDTEK 600			
610	620	630	640
TYVPMTEDIYNAIIDKTLKL 620			

FIG. 59

mFATP4 partial DNA



10 20 30 40
GATCAGCTCTTCTATATCTACACGTCGGGCACACGGGGC 40
TACCCAAAGCTGCCATTGTGGTGCACAGCAGGTATTACCG 80
AATGGCTGCCCTGGTGTACTATGGATTCCGCATGCGGCCT 120
GATGACATTGTCTATGACTGCCTCCGCCTCTACCACTCAG 160
CAGGAAACATTGTGGGGATTGGCCAGTGCGTACTCCACGG 200
210 220 230 240
CATGACTGTGGTGATCCGGAAGAAGTTTTTCAGCCTCCCGG 240
TTCTGGGATGACTGTATCAAGTACAAGTGCACAATTGTAC 280
AGTACATTGGTGAGCTTTGCCGCTACCTCCTGAACCAGCC 320
ACCCCGTGAGGCTGAGTCTCGGCACAAGGTGCGCATGGCA 360
CTGGGCAACGGTCTCCGGCAGTCCATCTGGACCGACTTCT 400
410 420 430 440
CCAGCCGTTTCCACATTCCCAAGGTGGCCGAGTTCTACGG 440
GGCCACCGAGTGCAACTGTAGCTTGGGCAACTTTGACAGC 480
CAGGTGGGGGCTGTGGCTTCAATAGCCGCATCCTGTCCT 520
TTGTGTACCCCATCCGCTTGGTACGAGTCAATGAGGATAC 560
CATGGAAGTATCCGGGGACCCGATGGCGTCTGCATTCCC 600
610 620 630 640
TGTCACCAGGCCAGCCAGGCCAGCTGGTGGGTGCGATCA 640
TCCAGCAGGACCCCTACGCCGTTTTGATGGCTACCTCAA 680
CCAGGGTGCCAACAACAAGAAGATTGCTAGTGATGTCTTC 720
AAGAAAGGGGACCAAGCCTACCTCACTGGTGACGTGCTGG 760
TGATGGATGAGCTGGGCTACCTGTACTTCCGAGACCGCAC 800
810 820 830 840
AGGGGACACGTTCCGCTGGAAAGGGGAGAATGTGTCTACC 840
ACTGAAGTGGAGGGCACACTCAGCCGCCTGCTTCAGATGG 880
CAGATGTGGCTGTTTATGGTGTGAGGTGCCAGGAGCTGA 920
GGGCCGAGCAGGAATGGCTGCTGTGGCAAGCCCCACTAGC 960
AACTGTGACCTGGAGAGCTTTGCACAGACCTTGAAAAAGG 1000
1010 1020 1030 1040
AGCTGCCCTGTACGCCCGCCCCATCTTCCTCCGCTTCTT 1040
GCCTGAGCTGCACAAAACAGGAACCTTCAAGTTCCAGAAG 1080
ACAGAGTTGCGGAAGGAGGGCTTTGACCCGTCTGTTGTGA 1120
AAGACCCACTCTTCTATTTGGATGCCCGGACAGGCTGCTA 1160
TGTTGCACTGGACCAAGAGGCCTATACCCGCATCCAGGCA 1200

FIG. 60A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210 1220 1230 1240
GGCGAGGAGAAGCTGTGATTTCCCCACATCCCTCTGAGG 1240
GCCAGAGGATGCTGGATTGAGAGCCCCAGCTTCCACTCCA 1280
GAAGGGGTCTGGGCAAGGCCAGACCAAAGCTAGCAGGGCC 1320
CGCACCTTCACCCTAGGTGCTGATCCCCCT 1350

FIG. 60B

mFATP4 partial DNA

10 20 30 40
DQLFYIYTS GTTGLPKAAIVVHSRYRMAALVYYGFRMRP 40
DDIVYDCLPLYHSAGNIVGIGQCVLHGMTVVIRKKFSASR 80
FWDDCIKYNCTIVQYIGELCRYLLNQPPREAESRHKVRMA 120
LGNGLRQSIWTFSSRFHIPKVAEFYGATECNC SLGNFDS 160
QVGACGFNSRILSFVYPIRLVRVNEDTMELIRGPDGVCIP 200
210 220 230 240
CQPGQPGQLVGRIIQQDPLRRFDGYLNQGANNKKIASDVF 240
KKGDAQAYLTGDVLYMDELGYLYFRDRTGDTFRWKGENVST 280
TEVEGTLSRLLQMAADVAVYGVEVPGAEGRAGMAAVASPTS 320
NCDLESFAQTLKKELPLYARPIFLRFLPELHKTGTGFKFQK 360
TELKKEGFDPSVVKDPLFYLDARTGCYVALDQEA YTRIQA 400
410 420 430 440
GEEKL 405

FIG. 61



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mmFATP1 full length DNA

10 20 30 40
ATGCGGGCTCCTGGAGCAGGAACAGCCTCTGTGGCCTCAC 40
TGGCGCTGCTTTGGTTTCTGGGACTTCCGTGGACCTGGAG 80
CGCGGCGGCGGCGTTCTGTGTGTACGTGGGTGGCGGCGGC 120
TGGCGCTTTCTGCGTATCGTCTGCAAGACGGCGAGGCGAG 160
ACCTCTTTGGCCTCTCTGTTCTGATTCTGTGTTTCGGCTAGA 200
210 220 230 240
GCTGCGACGACACCGGCGAGCAGGAGACACGATCCCGTGC 240
ATCTTCCAGGCTGTGGCCCGGCGACAACCAGAGCGCCTGG 280
CACTGGTGGACGCCAGTAGTGGTATATGCTGGACCTTCGC 320
ACAGCTGGACACCTACTCCAATGCTGTAGCCAACCTGTTC 360
CGCCAGCTGGGCTTTGCACCAGGCGATGTGGTGGCTGTGT 400
410 420 430 440
TCCTGGAGGGCCGGCCGGAGTTCGTGGGACTGTGGCTGGG 440
CCTGGCCAAGGCCGGTGTGGTGGCTGCTCTTCTCAATGTC 480
AACCTGAGGCGGGAGCCCCTGGCCTTCTGCCTGGGCACAT 520
CAGCTGCCAAGGCCCTCATTTATGGCGGGGAGATGGCAGC 560
GGCGGTGGCGGAGGTGAGCGAGCAGCTGGGGAAGAGCCTC 600
610 620 630 640
CTCAAGTTCTGCTCTGGAGATCTGGGGCCTGAGAGCATCC 640
TGCCCTGACACGCAGCTCCTGGACCCCATGCTTGCTGAGGC 680
GCCCACCACACCCCTGGCACAAGCCCCAGGCAAGGGCATG 720
GATGATCGGCTGTTTTACATCTATACTTCTGGGACCACCG 760
GGCTTCCTAAGGCTGCCATTGTGGTGCACAGCAGGTACTA 800
810 820 830 840
CCGCATTGCTGCCTTTGGCCACCATTCTACAGCATGCGT 840
GCCGCCGATGTGCTCTATGACTGCCTGCCACTCTACCACT 880
CTGCAGGGAACATCATGGGTGTGGGGCAGTGCGTCATCTA 920
CGGGTTGACGGTGGTACTGCGCAAGAAGTTCTCCGCCAGC 960
CGCTTCTGGGATGACTGTGTCAAGTACAATTGCACGGTAG 1000
1010 1020 1030 1040
TGGATGACATAGGTGAAATCTGCCGCTACCTGCTGAGGCA 1040
GCCGGTTCGCGACGTGGAGCAGCGACACCGCGTGCGCCTG 1080
GCCGTGGGTAATGGGCTGCGGCCAGCCATCTGGGAGGAGT 1120
TCACGCAGCGCTTCGGTGTGCCACAGATCGGCGAGTTCTA 1160
CGGCGCTACCGAGTGCAACTGCAGCATTGCCAACATGGAC 1200

FIG. 62A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210	1220	1230	1240
GGCAAGGTCGGCTCCTGCGGCTTCAACAGCCGTATCCTCA	1240		
CGCATGTGTACCCCATCCGTCTGGTCAAGGTCAATGAGGA	1280		
CACGATGGAGCCACTGCGGGACTCCGAGGGCCTCTGCATC	1320		
CCGTGCCAGCCCGGGGAACCCGGCCTTCTCGTGGGCCAGA	1360		
TCAACCAGCAGGACCCTCTGCGGCGTTTCGATGGTTATGT	1400		

1410	1420	1430	1440
TAGTGACAGTGCCACCAACAAGAAGATTGCCCACAGCGTT	1440		
ITCCGAAAGGGCGATAGCGCCTACCTCTCAGGTGACGTGC	1480		
TAGTGATGGACGAGCTGGGCTACATGTATTTCCGTGACCG	1520		
CAGCGGGGACACCTTCCGCTGGCGCGGGGAGAACGTGTCC	1560		
ACCACGGAGGTGGAAGCCGTGCTGAGCCGCCTACTGGGCC	1600		

1610	1620	1630	1640
AGACGGACGTGGCTGTGTATGGGGTGGCTGTGCCAGGAGT	1640		
GGAGGGGAAAGCTGGCATGGCAGCCATCGCAGATCCCCAC	1680		
AGCCAGTTGGACCCTAACTCAATGTACCAGGAATTACAGA	1720		
AGGTTCTTGCATCCTATGCTCGGCCCATCTTCCTGCGTCT	1760		
TCTGCCCCAGGTGGATACCACAGGCACCTTCAAGATCCAG	1800		

1810	1820	1830	1840
AAGACCCGGCTGCAGCGTGAAGGCTTTGACCCCCGTCAGA	1840		
CCTCAGACAGGCTCTTCTTTCTAGACCTGAAGTCCGGCAC	1880		
GAGGTATCTACCCCTGGATGAGAGAGTCCATGCCCGCATT	1920		
TGCGCAGGCGACTTCTCACTCTGAGCCTGGAGAGTGGGCT	1960		
GGGCCTGGACTCCTGAGACCTGGGAGCCTGACACCCCTCT	2000		

2010	2020	2030	2040
TCGGGTGCTTCTCCTGCCTGGCCACATGGACAGCAGCACC	2040		
TGTGAGAGTAGGAAAATGGAACCTGAGTGGCTGGGACCCC	2080		
TCTCCTACTTCCCCTATGCATCCATTTTGCCTCTGCCTT	2120		
GATCTTTTTCTCCATCTCTTTTCTCCCTACCCAGCAGGAG	2160		
CCCCACAAACACATGTTGGCTGCTGTGTCCTGCAGTTGGA	2200		

FIG. 62B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

2210	2220	2230	2240
CCAGTGTCCAGGGGTACAGGCTTCAGGCTGTGACCCACAC	2240		
TGGTACCCACCTCCCTTTTCCTATTTTGCCTTAGGTTTCATC	2280		
CACGGTTCCCCTGTGGAGCAAGTGGGGGCCACATAGCTG	2320		
CTGTCCCTGCTGAGGGTTGGTAGCAATCACACCCTCATGT	2360		
CAGCTGGGAGACACGCGCAGTCTCCCACTGACCCCCAATC	2400		

2410	2420	2430	2440
AACTGAAAATATTGTTTTGACTACTTTTTGTTTTTTTGT	2440		
TTTTTGTTTTTTTTTTTTTTTTCGAGACAGAGTTTCTCTGTA	2480		
TAGCCCTGGCTGTCCTGGAACCTCACTTTGTAGACCAGGCT	2520		
GGCCTCGAACTCAAAAATCCTCCTGACTCTGCCTCTGCTT	2560		
CCCAAGTGCTGGGATTAAAGACGTGCGCCACCACCGCCTG	2600		

2610	2620	2630	2640
GCTGTTTTGTATTTTGTGTTTTGTTTTGACGATAGGGTCTC	2640		
ACTGTGGAGGCCAAGCTGGCCTCAGACTCCCCACCCCAT	2680		
GCCTCTGGGCACCATTTCTATATTCTCAGACTGATGACAAT	2720		
GCACTAGTGTCCCTAGGAGTCTTGAGTCTGCACTTTCCCC	2760		
TCATAGCCTCAAGCTTCCAGAACTGACTCTGATCACTTGG	2800		

2810	2820	2830	2840
ATGTGGCTAGTGTTGGCTCTACCCACATGTGTCAATTCAG	2840		
GGGTCCCCAGGCATAGTCTCTGGAAGCCCTCACCCGGAAA	2880		
AAGCTTGGAGAGACCCAGGAAGGTTGTTGTGTTCTCTTGG	2920		
GCACCCCTTGGTGGCAGTCCTGGGCATGCTTCCGCACTGT	2960		
ACTGGTGCATATAGCCCAGACCTATGACATTTGAGGTCTA	3000		

3010	3020	3030	3040
CCCTTCTGGCTCCTGTGGTCCCCATTGAGATCCTTGGTGA	3040		
CTCACCTCAGTCACCAAGCAGAGCCTCTGCCTGCCTTCAT	3080		
CTTCAAGGTCATGAAGGATGTGGACAGAGCAGCTACAGGC	3120		
TGCCAGCAGTCAACCACATGAGAGTGTTACTTCCTTGTTG	3160		
GTTTTTAAAAAATAAATGTGCTGAGCCTCGAAAAAAAAAA	3200		

3210	3220	3230	3240
AAAAAAAAAAAAAAAAAAAA	3217		

FIG. 62C



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mmFATP1 full length protein

```

      10      20      30      40
+-----+
MRAPGAGTASVASLALLWFLGLPWTWSAAAAFCVYVGGGG 40
WRFLRI VCKTARRDLFGLSVLIRVRLELRRHRRAGDTIPC 80
IFQAVARROPERLALVDASSGICWTFAQLDTYSNAVANLF 120
RQLGFAPGDVVAVFLEGRPEFVGLWLGLAKAGVVAALLNV 160
NLRREPLAFCLGTSAAKALIYGGEMAAVAEVSEQLGKSL 200
      210      220      230      240
+-----+
LKFCSGDLGPESILPDTQLLDPMLAEAPTTPLAQAPGKGM 240
DORLFYIYTS GTTGLPKAAIVVHSRYRRIA AFGHHSYSMR 280
AADVLYDCLPLYHSAGNIMGVGO CVIYGLTVVLRKKFSAS 320
RFWDDCVKYNCTVVD DIGEICRYLLRQPV RDVEQRHRVRL 360
AVGNGLRPAIWEEFTQRF GVPQIGEFYGATECNC SIANMD 400
      410      420      430      440
+-----+
GKVGSCGFNSRILTHVYPIRLVKVNEDTMEPLRDSEGLCI 440
PCQPGEPGLLVGOINQQDPLRRFDGYVSDSATNKKIAHSV 480
FRKGDSAYLSGOVLVMD ELGYMYFRDRSGDTFRWRGENVS 520
TTEVEAVLSRLLGQTDVAVYGVAVPGVEGKAGMAAIADPH 560
SQLDPNSMYQELQKVLAS YARP IFLRLLPOVDTTGTFKIQ 600
      610      620      630      640
+-----+
KTRLQREGFDPRQTS DRLFFLDLKS GTRYLPLDERVHARI 640
CAGDFSL 647

```

FIG. 63



mmFATP2 full length DNA

```

      10      20      30      40
      |      |      |      |
GGGCGGAGGCCGAGCCAGTCGCCAGCTCCTGCTCTGCTC 40
CTCTCCCGCCTGCCGCCGCGCTGCACGCCTCGAGCACTCC 80
CTCGGCCCCGGCGGGGACCGGGGACCCCGCAGCTACCGCC 120
ATGCTGCCAGTGCTCTACACCGGCCTGGCGGGGCTGCTGC 160
TGCTGCCTCTGCTGCTCACCTGCTGCTGCCCCCTACCTCCT 200

      210      220      230      240
      |      |      |      |
CCAAGATGTGCGGTACTTCCTGCGGCTGGCCAACATGGCC 240
CGGCGGGTGCGCAGCTACCGGCAGCGGCGACCCGTGCGTA 280
CCATCCTGCGGGCCTTCCTGGAACAAGCGCGCAAGACCCC 320
ACACAAGCCCTTCCTGCTGTTCCGAGACGAGACGCTCACC 360
TACGCCCAGGTGGACCGGCGCAGCAACCAAGTGGCGCGGG 400

      410      420      430      440
      |      |      |      |
CGCTGCACGATCAACTGGGCCTACGACAGGGGGATTGCGT 440
AGCCCTCTTTCATGGGCAATGAGCCGGCCTACGTGTGGATC 480
TGGCTGGGACTGCTCAAACCTGGGCTGTCCCATGGCGTGCC 520
TCAACTACAACATTTCGTGCCAAGTCTCTGCTGCACTGCTT 560
TCAATGCTGCGGGGCGAAGGTGCTGCTGGCCTCCCCAGAT 600

      610      620      630      640
      |      |      |      |
CTACAAGAAGCTGTGGAGGAGGTTCTTCCAACCCTGAAAA 640
AGGATGCCGTGTCCGTCTTTTACGTAAGCAGAACTTCTAA 680
CACAAATGGTGTGGACACAATACTGGACAAAGTAGACGGA 720
GTGTGCGGCGGAACCCACCCCGGAGTCGTGGAGGTCTGAAG 760
TCACTTTTTACCACGCCAGCAGTATACATTTTATACTTCGGG 800

      810      820      830      840
      |      |      |      |
AACCACAGGTCTTCCAAAAAGCGGAACCATCAATCATCAT 840
CGCCTAAGGTATGGGACAAGCCTTGCTATGTCGAGTGGGA 880
ATCACGGCCAAGGATGTCATCTATACCAACAATGCCCTTG 920
TTCCAACAGTGCAACGCTCAAGATCGGCCTTCACGGATGC 960
ATCCTGGGTGGGGCTACTTTAACCTTGGCGGGGCAAATT 1000

     1010      1020      1030      1040
     |      |      |      |
CTCAAGCAAGCCAATTTTGGGAACGACTGGCAGGAAATAC 1040
AACGTCAACGGTCATTTCAGTACATTGGTGAAGTCTTCGG 1080
TACCTGTGCAACACACCGCAGAAACCAAATGACCGGGACC 1120
ACAAAGTGAAAAAAGCCCTGGGAAATGGCTTACGAGGAGA 1160
TGTGTGGAGAGAGTTTCATCAAGAGATTTGGGGACATCCAC 1200

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FIG. 64A



1210 1220 1230 1240
GTGTATGAGTTCTACGCATCCACTGAAGGCAACATTGGAT 1240
TTGTGAACTATCCAAGGAAAATCGGTGCTGTCGGGAGAGC 1280
AAACTACCTACAAAGAAAAGTTGCAAGGTATGAGCTGATC 1320
AAGTATGACGTGGAGAAGGACGAGCCGGTCCGTGACGCAA 1360
ATGGATATTGCATCAAAGTCCCCAAAGGTGAGGTTGGACT 1400

1410 1420 1430 1440
CTTGGTTTGC AAAATCACACAGCTCACACCATTATTGGC 1440
TATGCTGGAGGAAAGACCCAGACAGAGAAGAAAAAACTCA 1480
GAGATGTCTTTAAGAAAGGCGACATCTACTTCAACAGCGG 1520
AGACCTCCTGATGATCGACCGTGAGAACTTCGTCTACTTT 1560
CACGACAGGGTTGGAGATACTTTCCGGTGGAAGGAGAGA 1600

1610 1620 1630 1640
ACGTAGCTACCACAGAAGTCGCTGACATCGTGGGACTGGT 1640
AGATTTTGTGAAGAAGTGAATGTGTATGGCGTGCCTGTG 1680
CCAGGTCATGAGGGTCGAATTGGGATGGCCTCCCTCAAGA 1720
TCAAAGAAAACACTACGAGTTCAATGGAAAGAACTCTTTCA 1760
ACACATCGCGGAGTACCTGCCCAGTTACGCGAGGCCTCGG 1800

1810 1820 1830 1840
TTCCTGAGGATACAAGATACCATTTGAGATCACTGGGACTT 1840
TTAAACACCGCAAAGTGACCCTGATGGAAGAGGGCTTCAA 1880
TCCCACAGTCATCAAAGATACCTTGTATTTTCATGGATGAT 1920
GCAGAGAAAACATTTGTGCCCATGACTGAGAACATTTATA 1960
ATGCCATAATTGATAAAACTCTGAAGCTCTGAATATTCCC 2000

2010 2020 2030 2040
TGGTGGTTTAGCTCATGACATTTCCAGAAAGAAACTCGAT 2040
AGACCTCGCAGAGCCACTTCATACGTAGAATCCAACCTTTA 2080
ACTTGATTGAAGACTATAAGGTGCGATTTTATTTTATAGGA 2120
AATTATTCATTAAAAGGATAGTTTTTTTTTTTTTTTTTAA 2160
TTACACCTGAACCTTTGCAAGTAAAAAGATTTAGAGACAA 2200

2210 2220 2230 2240
TTATTTTTCAATGTGCACCTGCCATTTGTCCTTGCAAAC 2240
AAGCTTCTTGGAGAGAGGGCCTTATTTTTTTTAAAGACATA 2280
ATAAACTATATTAACACTAAAAAAAAAAAAAAAAAAAAAA 2320
AAAAAAAAAAAAAAAAAAAA 2338

FIG. 64B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mmFATP2 full length protein

10 20 30 40
MLPVLYTGLAGLLLLPLLLTCCCPYLLQDVRYFLRLANMA 40
RRVRSYRQRRPVRTILRAFLEQARKTPHKPFLFRDETLT 80
YAQVDRRSNQVARALHDQLGLRQGDCVALFMGNEPAYVWI 120
WLGLLKLGCMACLNYNIRAKSLLHCFQCCGAKVLLASPD 160
LOEAVEEVLP TLKKDAVS VFYVSRTSNTNGVDTILDKVDG 200
210 220 230 240
VSAEPTPESWRSEVTF TTPAVYIY TSGTTGLPKSGTINHH 240
RLRYGTSLAMSSGNHGGCHLYQQCPCSNSATLKIGLHGC 280
ILGWGYFNLGGANSQASQFWERLAGNTTSTVIQYIGELLR 320
YLCNTPQKPNDRDHKVKKALGNGLRGDVWREFIKRFGDIH 360
VYEFYASTEIGNIGFVNYPRKIGAVGRANYLQRKVARYELI 400
410 420 430 440
KYDVEKDEPV RDANGYCIKVPKGEVGLLVCKITQLTPFIG 440
YAGGKTQTEKKKLRDVFKKGD IYFNSGDLLMIDRENFVYF 480
HDRVGD TFRWKGENVATTEVADI VGLVDFVEEVN VYGVPV 520
PGHEGRIGMASLKI KENYEFNGKKLFQHIAEYLPSYARPR 560
FLRIQDTIEITGT FKHVKVTLMEEGFNPTVIKDTLYFMD 600
610 620 630 640
AEKTFVPM TENIYNAIIDKTLKL 623

FIG. 65



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mmFATP3 partial DNA

```

      10      20      30      40
      |      |      |      |
GAAAGCTCTGAGAGCGGGTGCAGTCTGGCCTGGCGTCTCG 40
CGTACCTGGCCCCGGGAGCAGCCGACACACACCTTCCTCAT 80
CCACGGCGCGCAGCGCTTTAGCTACGCGGAGGCTGAGCGC 120
GAGAGCAACCGGATTGCTCGCGCCTTTCTGCGCGCACGGG 160
GCTGGACCGGGGGCCGCCGAGGCTCGGGCAGGGGCAGCAC 200

     210     220     230     240
     |     |     |     |
TGAGGAAGGCGCACGCGTGGCGCCTCCGGCTGGAGATGCG 240
GCTGCTAGAGGGACGACCGCGCCCCCTCTGGCACCCGGGG 280
CGACCGTGGCGCTGCTCCTCCCAGCGGGCCCGGATTTCT 320
TTGGATTTGGTTTCGGAAGCTGGCCTGCGCACG 360
GCCTTTGTGCCCACCGCTTTACGCCGAGGACCCCTGCTGC 400

     410     420     430     440
     |     |     |     |
ACTGCCTCCGCAGCTGCGGTGCGAGTGGCTCGTGCTGGC 440
CACAGAGTTCTTGGAGTCCCTGGAGCCGGACCTGCCGGCC 480
TTGAGAGCCATGGGGCTCCACCTATGGGCGACGGGCCCTG 520
AAACTAATGTAGCTGGAATCAGCAATTTGCTATCGGAAGC 560
AGCAGACCAAGTGGATGAGCCAGTGCCGGGGTACCTCTCT 600

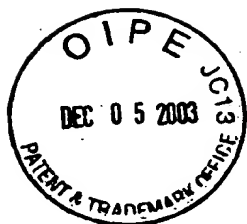
     610     620     630     640
     |     |     |     |
GCCCCCAGAACATAATGGACACCTGCCTGTACATCTTCA 640
CCTCTGGCACTACTGGCCTGCCCAAGGCTGCTCGAATCAG 680
TCATCTGAAGTTCTACAGTGCCAGGGATTCTACCATCTG 720
TGTGGAGTCCACCAGGAGGACGTGATCTACCTCGCACTCC 760
CACTGTACCACATGTCTGGCTCCCTTCTGGGCATTGTGGG 800

     810     820     830     840
     |     |     |     |
CTGCTTGGGCATTGGGGCCACCGTGGTGCTGAAACCCAAG 840
TTCTCAGCTAGCCAGTTCTGGGACGATTGCCAGAAACACA 880
GGGTGACAGTGTTCCAGTACATTGGGGAGTTGTGCCGATA 920
CCTCGTCAACCAGCCCCCGAGCAAGGCAGAGTTTGACCAT 960
AAGGTGCGCTTGGCAGTGGGCAGTGGGTTGCGCCCAGACA 1000

    1010    1020    1030    1040
    |     |     |     |
CCTGGGAGCGTTTCTGCGGCGATTTGGACCTCTGCAGAT 1040
ACTGGAGACGTATGGCATGACAGAGGGCAACGTAGCTACG 1080
TTCAATTACACAGGACGGCAGGGTGCAGTGGGGCGAGCTT 1120
CCTGGCTTTACAAGCACATCTTCCCCTTCTCCTTGATTCTG 1160
ATACGATGTCATGACAGGGGAGCCTATTGGAATGCCAG 1200

```

FIG. 66A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

```

      1210      1220      1230      1240
      | | | | | | | | | | | | | | | | | |
GGGCACTGCATGACCACATCTCCAGGTGAGCCAGGCCTAC 1240
TGGTGGCCCCCAGTGAGCCAGCAGTCCCCCTTCCTGGGCTA 1280
TGCTGGGGCTCCGGAGCTGGCCAAGGACAAGCTGCTGAAG 1320
GATGTCTTCTGGTCTGGGGACGTTTTCTTCAATACTGGGG 1360
ACCTCTTGGTCTGTGATGAGCAAGGCTTTCTTCACTTCCA 1400
      1410      1420      1430      1440
      | | | | | | | | | | | | | | | | | |
CGATCGTACTGGAGACACCATCAGGTGGAAGGGAGAGAAT 1440
GTGGCCACAACCTGAAGTGGCTGAGGTCTTGGAGACCCTGG 1480
ACTTCCTTCAGGAGGTGAACATCTATGGAGTCACGGTGCC 1520
AGGGCACGAAGGCAGGGCAGGCATGGCGGCCTTGGCTCTG 1560
CGGCCCCCGCAGGCTCTGAACCTGGTGCAGCTCTACAGCC 1600
      1610      1620      1630      1640
      | | | | | | | | | | | | | | | | | |
ATGTTTCTGAGAACTTGCCACCGTATGCCCCGACCTCGGTT 1640
TCTCAGGCTCCAGGAATCTTTGGCCACTACTGAGACCTTC 1680
AAACAGCAGAAGGTTAGGATGGCCAATGAGGGCTTTGACC 1720
CCAGTGTACTGTCTGACCCACTCTATGTTCTGGACCAAGA 1760
TATAGGGGGCCTACCTGCCCCCTCACACCTGCCCCGGTACAGT 1800
      1810      1820      1830      1840
      | | | | | | | | | | | | | | | | | |
GCCCTCCTGTCTGGAGACCTTCGAATCTGAAACCTTCCAC 1840
TTGAGGGGAGGGGCTCGGAGGGTACAGGCCACCATGGCTGC 1880
ACCAGGGGAGGGTTTTTCGGGTATCTTTTGTATATGGAGTCA 1920
TTATTTTGTAAATAAACAGCTGGAGCTTAAAAAAAAAAAAAA 1960
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA 1998

```

FIG. 66B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mmFATP3 partial protein

```

      10      20      30      40
+-----+
ESSESGCSLAWRLAYLAREQPTHFLIHGAQRFSYAEAER 40
ESNRIARAFLRARGWTGGRRGSGRGSTEEGARVAPPAGDA 80
AARGTTAPPLAPGATVALLLPAGPDFLWIWFGGLAKAGLRT 120
AFVPTALRRGPPLHCLRSCGASALVLATEFLESLEPDLP 160
LRAMGLHLWATGPETNVAGISNLLSEAADQVDEPVPGYLS 200
      210      220      230      240
+-----+
APQNIIMDTCLYIFTSGTTGLPKAARISHLKVLCQGFYHL 240
CGVHQEDVIYLALPLYHMSGSLGIVGCLGIGATVVLKPK 280
FSASQFWDDCQKHRVTVFQYIGELCRYLVNQPPSKAEFDH 320
KVRLAVGSGLRPDTWERFLRRFGPLQILETYGMTEGNVAT 360
FNYTGRQGAVGRASWLYKHIFPFSLIRYDVMTGEPIRNAQ 400
      410      420      430      440
+-----+
GHCMTTSPGEPGLLVAPVVSQOSPFLGYAGAPELAKDKLLK 440
DVFWSGDVFFNTGDLLVCDEOGFLHFHRTGDTIRWKGEN 480
VATTEVAEVLETLDLFQEVNIYGVTVPGHEGRAGMAALAL 520
RPPQALNLVQLYSHVSENLPYARPRFLRLQESLATTETF 560
KQKVRMANEGFDPSVLSDPYVLDQDYGAYLPLTPARYS 600
      610      620      630      640
+-----+
ALLSGDLR! 609
```

FIG. 67

FIG. 68A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

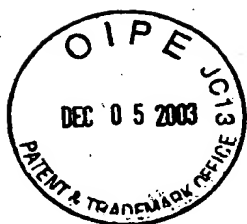
1210	1220	1230	1240
GGGGCCTGTGGCTTCAATAGCCGCATCCTGTCCTTTGTGT 1240			
ACCCTATCCGTTTGGTACGTGTCAATGAGGATACCATGGA 1280			
ACTGATCCGGGGACCCGATGGAGTCTGCATTCCCTGTCAA 1320			
CCAGGTCAGCCAGGCCAGCTGGTGGGTTCGCATCATCCAGC 1360			
AGGACCCTCTGCGCCGTTTCGACGGGTACCTCAACCAGGG 1400			

1410	1420	1430	1440
TGCCAACAACAAGAAGATTGCTAATGATGTCTTCAAGAAG 1440			
GGGGACCAAGCCTACCTCACTGGTGACGTCCTGGTGATGG 1480			
ATGAGCTGGGTTACCTGTACTTCCGAGATCGCACTGGGGA 1520			
CACGTTCCGCTGGAAAGGGGAGAATGTATCTACCACTGAG 1560			
GTGGAGGGCACACTCAGCCGCCTGCTTCATATGGCAGATG 1600			

1610	1620	1630	1640
TGGCAGTTTATGGTGTGAGGTGCCAGGAACTGAAGGCCG 1640			
AGCAGGAATGGCTGCCGTTGCAAGTCCCATCAGCAACTGT 1680			
GACCTGGAGAGCTTTGCACAGACCTTGAAAAAGGAGCTGC 1720			
CTCTGTATGCCCCGCCCATCTTCCTGCGCTTCTTGCCTGA 1760			
GCTGCACAAGACAGGGACCTTCAAGTTCCAGAAGACAGAG 1800			

1810	1820	1830	1840
TTGCGGAAGGAGGGCTTTGACCCATCTGTTGTGAAAGACC 1840			
CGCTGTTCTATCTGGATGCTCGGAAGGGCTGCTACGTTGC 1880			
ACTGGACCAGGAGGCCTATACCCGCATCCAGGCAGGCGAG 1920			
GAGAAGCTGTGATTTCCCCCTACATCCCTCTGAGGGCCAG 1960			
AAGATGCTGGATTTCAGAGCCCTAGCGTCCACCCAGAGGG 2000			

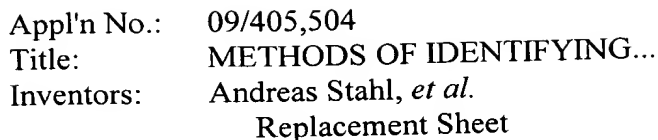
FIG. 68B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

2010	2020	2030	2040
TCCTGGGCAATGCCAGACCAAAGCTAGCAGGGCCCGCACC 2040			
TCCGCCCCTAGGTGCTGATCTCCCCTCTCCCAAAGTCCA 2080			
AGTGACTCACTGCCGCTTCCCCGACCCTCCAGAGGCTTTC 2120			
TGTGAAAGTCTCATCCAAGCTGTGTCTTCTGGTCCAGGCG 2160			
TGGCCCCCTGGCCCCAGGGTTTCTGATAGGCTCCTTTAGGA 2200			
2210	2220	2230	2240
TGGTATCTTGGGTCCAGCGGGCCAGGGTGTGGGAGAGGAG 2240			
TCACTAAGATCCCTCCAATCAGAAGGGAGCTTACAAAGGA 2280			
ACCAAGGCAAAGCCTGTAGACTCAGGAAGCTAAGTGGCCA 2320			
GAGACTATAGTGGCCAGTCATCCCATGTCCACAGAGGATC 2360			
TTGGTCCAGAGCTGCCAAAGTGTCACCTCTCCCTGCCTGC 2400			
2410	2420	2430	2440
ACCTCTGGGGAAAAGAGGACAGCATGTGGCCACTGGGCAC 2440			
CTGTCTCAAGAAGTCAGGATCACACACTCAGTCCTTGTTT 2480			
CTCCAGGTTCCCTTGTTCTTGTCTCGGGGAGGGAGGGACG 2520			
AGTGTCCTGTCTGTCTTCCCTGCCTGTCTGTGAGTCTGTG 2560			
TTGCTTCTCCATCTGTCCTAGCCTGAGTGTGGGTGGAACA 2600			
2610	2620	2630	2640
GGCATGAGGAGAGTGTGGCTCAGGGGCAATAAACTCTGC 2640			
CTTGACTCCTCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAA 2680			
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA 2710			

FIG. 68C



10 20 30 40

MLLGASLVGALLFSKLVKLPTQVGFSLLLLYLGSGGWR 40
FIRVFIKTVRRDIFGGMVLLKVTKVRRYLOERKTVPLLF 80
ASMVQRHPDKTALIFEGTOTHWTFRQLDEYSSSVANFLQA 120
RGLASGNVVALFMENRNEFVGLWLGMALGVAAALINTNL 160
RRDALRHCLDTSKARALIFGSEMASAICEIHASLEPTLSL 200

210 220 230 240

FCSGSWEPSTVPVSTEHLDPLLEDAPKHLPSHPDKGFTDK 240
LFYIYTS GTTGLPKAAIVVHSRYRMASLVYYGFRMRPDD 280
IVYDCLPLYHSSRKHRGDWQCLLHGMTVVIRKKFSASRFW 320
DDCIKYNCTVVQYIGELCRYLLNQPPREAESRHKVVMALG 360
NGLRQSIWTD FSSRFHIQVAEFYGATECNC SLGNFDSRV 400

410 420 430 440

GACGFNSRILSFVYPIRLVRVNEDTMELIRGPDGVCIPCC 440
PGQPGQLVGR I IQODPLRRFDGYLNOGANNKKIANDVFKK 480
GDQAYLTGDVLVMDLGYLYFRDRTGDTFRWKGENVSTTE 520
VEGTLSRLLHMADVAVYGVVPGTEGRAGMAAVASPI SNC 560
DLESFAOTLKKELPLYARP IFLRFLPELHKTGTFKFQKTE 600

610 620 630 640

LRKEGFDPSVVKDPLFYLDARKGCYVALDQEA YTRIQAGE 640
EKL 643

FIG. 69



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mmFATP5 full length DNA

```

      10      20      30      40
+-----+
CACTCATCAGAGCTAAGAGAGACTACACGCTCTCATCTAC 40
TTCAGAAAGAGCCAATGCCATGGGTATTTGGAAGAACTA 80
ACCTTACTGCTGTTGCTGCTTCTGCTGGTTGGCCTGGGGC 120
AGCCCCCATGGCCAGCAGCTATGGCTCTGGCCCTGCGTTG 160
GTTCTTGGGAGACCCACATGCCTTGTGCTGCTTGGCTTG 200
      210      220      230      240
+-----+
GCATTGCTGGGCAGACCCTGGATCAGCTCCTGGATGCCCC 240
ACTGGCTGAGCCTGGTAGGAGCAGCTCTTACCTTATTCCT 280
ATTGCCTCTACAGCCACCCCCAGGGCTACGCTGGCTGCAT 320
AAAGATGTGGCTTTACCTTCAAGATGCTTTTCTATGGCC 360
TAAAGTTCAGGCGACGCCTTAACAACATCCTCCAGAGAC 400
      410      420      430      440
+-----+
CTTTGTGGATGCTTTAGAGCGGCAAGCACTGGCATGGCCT 440
GACCGGGTGGCCTTGGTGTGTACTGGGTCTGAGGGCTCCT 480
CAATCACAAATAGCCAGCTGGATGCCAGGTCTGTGTCAGGC 520
AGCATGGGTCTTGAAGCAAAGCTGAAGGATGCCGTAATC 560
CAGAACACAAGAGATGCTGCTGCTATCTTAGTTCTCCCGT 600
      610      620      630      640
+-----+
CCAAGACCATTCTGCTTTGAGTGTGTTTCTGGGGTTGGC 640
CAAGTTGGGCTGCCCTGTGGCCTGGATCAATCCACACAGC 680
CGAGGGATGCCCTTGCTACACTCTGTACGGAGCTCTGGGG 720
CCAGTGTGCTGATTGTGGATCCAGACCTCCAGGAGAACCT 760
GGAAGAAGTCCTTCCCAAGCTGCTAGCTGAGAACATTAC 800
      810      820      830      840
+-----+
TGCTTCTACCTTGGCCACAGCTCACCCACCCGGGAGTAG 840
AGGCTCTGGGAGCTTCCCTGGATGCTGCACCTTCTGACCC 880
AGTACCTGCCAGCCTTCGAGCTACGATTAAGTGGAAATCT 920
CCTGCCATATTCATCTTTACTTCAGGGACCACTGGACTCC 960
CAAAGCCAGCCATCTTATCACATGAGCGGGTCATACAAGT 1000
      1010      1020      1030      1040
+-----+
GAGCAACGTGCTGTCCTTCTGTGGATGCAGAGCTGATGAT 1040
GTGGTCTATGACGTCCTACCTCTGTACCATACGATAGGGC 1080
TTGTCCTTGGATTCCCTTGGCTGCTTACAAGTTGGAGCCAC 1120
CTGTGTCCTGGCCCCCAAGTTCTCTGCCTCCCGATTCTGG 1160
GCTGAGTGCCGGCAGCATGGCGTAACAGTGATCTTGTATG 1200

```

FIG. 70A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210	1220	1230	1240
TGGGTGAAATCCTGCGGTACTTGTGTAACTGCCCTGAGCA 1240			
ACCAGAAGACAAGATACATACAGTGCCTTGGCCATGGGA 1280			
ACTGGACTTCGGGCAAATGTGTGGAAAACTTCCAGCAAC 1320			
GCTTTGGTCCCATTCGGATCTGGGAATTCTACGGATCCAC 1360			
AGAGGGCAATGTGGGCTTAATGAACTATGTGGGCCACTGC 1400			

1410	1420	1430	1440
GGGGCTGTGGGAAGGACCAGCTGCATCCTTCGAATGCTGA 1440			
CTCCCTTTGAGCTTGTACAGTTCGACATAGAGACAGCAGA 1480			
GCCTCTGAGGGACAAACAGGGTTTTTGCATTCTGTGGAG 1520			
CCAGGAAAGCCAGGACTTCTTTTGACCAAGGTTCGAAAGA 1560			
ACCAACCTTCTCTGGGCTACCGTGTTCCAGGCCGAGTC 1600			

1610	1620	1630	1640
CAATCGGAACTTGTTCGAATGTACGACGCGTAGGAGAC 1640			
CTGTACTTCAACACTGGGGACGTGCTGACCTTGGACCAGG 1680			
AAGGCTTCTTCTACTTTCAAGACCGCCTTGGTGACACCTT 1720			
CCGGTGGAAGGGCGAAAACGTATCTACTGGAGAGGTGGAG 1760			
TGTGTTTTGTCTAGCCTAGACTTCCTAGAGGAAGTCAATG 1800			

1810	1820	1830	1840
TCTATGGTGTGCCTGTGCCAGGGTGTGAGGGTAAGGTTGG 1840			
CATGGCTGCTGTGAACTGGCTCCTGGGAAGACTTTTGAT 1880			
GGGCAGAAGCTATACCAGCATGTCCGCTCCTGGCTCCCTG 1920			
CCTATGCCACACCTCATTTTCATCCGTATCCAGGATTCCCT 1960			
GGAGATCACAAACACCTACAAGCTGGTAAAGTCACGGCTG 2000			

2010	2020	2030	2040
GTGCGTGAGGGTTTTGATGTGGGGATCATTGCTGACCCCC 2040			
TCTACATACTGGACAACAAGGCCAGACCTTCCGGAGTCT 2080			
GATGCCAGATGTGTACCAGGCTGTGTGTGAAGGAACCTGG 2120			
AATCTCTGACCACCTAGCCAAGTGAAGGCAATCCAAAAG 2160			
TGTAAGATTGACACTAGTCAGCTTCACAAAGTTGTCCGG 2200			

2210	2220	2230	2240
GTTCCAGATGCCCATGGCCAGTAGTACTTAGAGAATAAA 2240			
CTTGAATGTGTATACAAAAAAAAAAAAAAAAAAAAAAAAA 2277			

FIG. 70B



mmFATP5 full length protein

10 20 30 40
MGIWKKLTL LLLLLLLLVGLGQPPWPAAMALALRWFLGDPT 40
CLVLLGLALLGRPWISSWMPHWLSLVGAALTFLFLLPLOPP 80
PGLRWLHKDVAFTFKMLFYGLKFRRRLNKHPPETFVDALE 120
RQALAWPDRVALVCTGSEGSSITNSQLDARSCQAAWVLKA 160
KLKDAVIQNTDRDAAAILVLPSKTI SALS VFLGLAKLGCPV 200
210 220 230 240
AWINPHSRGMPL LHSVRSSGASVLI VDPDLQENLEEVL PK 240
LLAENIHCFYLG HSSPTPGVEAL GASLDAAPSDVPASLR 280
ATIKWKSPAIF IFTSGTTGLPKPAILSHERVIOVSNVLSF 320
CGCRADDVVYD VLYHTIGLVLGFLGCLQVGATCVLAPK 360
FSASRFAECRQH GVTVILYVGEILRYLCNVPEQPEDKIH 400
410 420 430 440
TVRLAMGTGLR ANVWKNFQORFGPIRIWEFYGSTEGNVGL 440
MNYVGHCGAVGR TSCILRMLTPFELVQFDIETAELRDKQ 480
GFCIPVEPGKPG LLLTKVRKNQPF LGYRGSQAESNRKLVA 520
NVRRVGDLYFNT GQVLTLDQEGFFYFQDRLGDTFRWKGEN 560
VSTGEVECVLSS LDFLEEVNVYGVVPVGCEGKVGMAAVKL 600
610 620 630 640
APGKTFDGQKLY QHVRSWLPAYATPHFIRIQDSLEITNTY 640
KLVKSRLVREGF DVGIIADPLYILDNKAQTFRSLMPDVYQ 680
AVCEGTWNL 689

FIG. 71



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

dmFATP partial DNA

```
      10      20      30      40
      |      |      |      |
GCTCTCTGGGCCTATATCAAGCTGCTGAGGTACACGAAGC 40
GCCATGAGCGGCTCAACTACACGGTGGCGGACGTCTTTCGA 80
ACGAAATGTTTCAGGCCCATCCGGACAAGGTGGCTGTGGTC 120
AGTGAGACGCAACGCTGGACCTTCCGTCAGGTGAACGAGC 160
ATGCGAACAAGGTGGCCAATGTGCTGCAGGCTCAGGGCTA 200
      210      220      230      240
      |      |      |      |
CAAAAAGGGCGATGTGGTGGCCCTGTTGCTGGAGAACCGC 240
GCCGAGTACGTGGCCACCTGGCTGGGTCTCTCCAAGATCG 280
GTGTGATCACACCGCTGATCAACACGAATCTGCGCGGTCC 320
CTCCCTGCTGCACAGCATCACGGTGGCCCATTTGCTCGGCT 360
CTCATTTACGGCGAGGACTTCTTGAAGCTGTCACCGACG 400
      410      420      430      440
      |      |      |      |
TGGCCAAGGATCTGCCAGCGAACCTCACACTCTTCCAGTT 440
CAACAACGAGAACAACAACAGCGAGACGGAAAAGAACATA 480
CCGCAGGCCAAGAATCTGAACGCGCTGCTGACCACGGCCA 520
GCTATGAGAAGCCTAACAAGACGCAGGTTAACCACCACGA 560
CAAGCTGGTCTACATCTACACCTCCGGCACCACAGGATTG 600
      610      620      630      640
      |      |      |      |
CCAAAGGCTGCGGTTATCTCTCACTCCCGTTATCTGTTTA 640
TCGCTGCTGGCATCCACTACACCATGGGTTTCCAGGAGGA 680
GGACATCTTCTACACGCCCTTGCCTTTGTACCACACCGCT 720
GGTGGCATTATGTGCATGGGTGAGTCGGTGCTCTTTGGCT 760
CCACGGTCTCCATTTCGCAAGAAGTTCTCGGCATCCAATA 800
      810      820      830      840
      |      |      |      |
TTTCGCCGACTGCGCCAAGTATAATGCAACTATTGGTCAG 840
TATATCGGTGAGATGGCTCGCTACATTCTAGCTACGAAAC 880
CCTCGGAATACGACCAGAAACACCGAGTGCGTCTGGTCTT 920
TGGAACCGGACTGCGACCGCAGATTTGGCCACAGTTTGTG 960
CAGCGCTTCAACATTGCCAAGGTTGGCGAGTTCTACGGCG 1000
      1010      1020      1030      1040
      |      |      |      |
CCACCGAGGGTAATGCGAACATCATGAATCATGACAACAC 1040
GGTGGGCGCCATCGGCTTTGTGTGCGGCATCCTGCCCAAG 1080
ATCTACCCAATCTCGATCATTCGCGCCGATCCGGACACCG 1120
GAGAGCCCATTAGAGATAGGAATGGCCTATGCCAACTGTG 1160
CGCTCCCAACGAGCCAGGCGTATTCATCGGCAAGATCGTC 1200
```

FIG. 72A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210 1220 1230 1240
AAAGGAAATCCTTCTCGCGAATTCCTCGGATACGTCGATG 1240
AAAAGGCCTCCGCGAAGAAGATTGTTAAGGATGTGTTCAA 1280
GCATGGCGATATGGCTTTCATCTCCGGAGATCTGCTGGTT 1320
GCCGACGAGAAGGGTTATCTGTACTTCAAGGATCGCACCG 1360
GTGACACCTTCCGCTGGAAGGGCGAGAATGTTTCCACCAG 1400
1410 1420 1430 1440
CGAGGTGGAGGGCGCAAGTCAGCAATGTGGCCGGTTACAAG 1440
GATACCGTCGTTTACGGCGTAACCATTCGCGACACCGAGG 1480
GAAGGGCCGGCATGGCCGCCATCTATGATCCGGAGCGAGA 1520
ATTGGACCTCGACGTCTTCGCCGCTAGCTTGGCCAAGGTG 1560
CTGCCCGCGTACGCTCGTCCCCAGATCATTGCTCA 1600
1610 1620 1630 1640
CCAAGGTGGACCTGACTGGAACCTTTAAGCTGCGCAAGGT 1640
AGACCTGCAGAAGGAGGGCTACGATCCGAACGCGATCAAG 1680
GACGCGCTGTACTACCAGACTTCCAAGGGTCGGTACGAGC 1720
TGCTCACGCCCCAGGTTTACGACCAGGTGCAGCGCAACGA 1760
AATCCGCTTCTAAGAGCTGCAATAGAGTTGTGTCTGAACC 1800
1810 1820 1830 1840
TTGCCTTTTGCCCAATATGCTGTTAATTAGTTTGTAAAGGC 1840
TAAGTGTAGTAGAGGAAAATCGGGGAAATCGGCAGCAAA 1880
GATCATTCAGCCTAGGAGAGATGCATCCGAAGCACATTTT 1920
CATGTCAACAATGCACTTTTGTATATCGTAAGCATATATA 1960
TATCGTATATCGTAAACGTAGTTGTATCTGCATTTGTGTA 2000
2010 2020 2030 2040
GATGATAGCCTCCTATACGCATTTCAATTGTTTTTAGCGT 2040
GCTAAAGAACCTTGTTAAATGCAATTTTCACTATTGTTTA 2080
GTCAGTTTTAGTGGCATTACACTTCCATTCTCGTTGCGT 2120
TTCGTTTTTGCTGTACATATGAGAAGCTCTGATGTTTTT 2160
GTATCAAATAAAGTTTTTTCCTTACCACGGACCACGTGA 2200
2210 2220 2230 2240
AAAAAAAAAAAAAAAAAAAAA 2221

FIG. 72B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

dm FATP partial protein

10 20 30 40
ALWAYIKLLRYTKRHERLNYTVADVFERNVQAHPDKVAVV 40
SETQRWTFRQVNEHANKVANVLOAQGYKKGDVALLLENR 80
AEYVATWLGLSKIGVITPLINTNLRGPSLLHSITVAHCSA 120
LIYGEDFLEAVTDVAKDLPANLTLFQFNNENNNSETEKNI 160
POAKNLNALLTTASYEKPNTQVNHHDKLVIYITSGTTGL 200
210 220 230 240
PKAAVISHSRYLFIAGGIHYTMGFQEEDIFYTPLPLYHTA 240
GGIMCMGQSVLFGSTVSIRKKFSASNYFADCAKYNATIGQ 280
YIGEMARYILATKPSEYDQKHRVRLVFGNGLRPQIWPQFV 320
QRFNIAKVGEFYGATEGNANIMNHDNTVGAIGFVSRILPK 360
IYPISIIRADPDTGEPIRDRNGLCOLCAPNEPGVFIGKIV 400
410 420 430 440
KGNPSREFLGYYDEKASAKKIVKDVFKHGDMAFISGDLLV 440
ADEKGYLYFKDRTGDTFRWKGENYSTSEVEAQVSNVAGYK 480
DTVYVGVTIPHTEGRAGMAAIYDPERELDLVFAASLAKV 520
LPAYARPOIIRLLTKVDLTGTFLRKVDLQKEGYDPNAIK 560
DALYYOTSKGRYELLTPQVYDQVQRNEIRF 590

FIG. 73



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

drFATP partial DNA

10 20 30 40
AGTGTAGATACACAGGAACGTTTAAAATCCAGAAGACCA 40
GACTGCAAAGGGAAGGATACGATCCACGGCTCACAACTGA 80
CCAGATCTACTTCCTAAACTCCAGAGCAGGGCGTTACGAG 120
CTTGTCAACGAGGAGCTGTACAATGCATTTGAACAAGGGC 160
AGGATTTCCCTTT 173

FIG. 74

drFATP partial protein

10 20 30 40
SVDTTGTGFKIQKTRLQREGYDPRLTTDQIYFLNSRAGRYE 40
LVNEELYNAFEQGQDFP 57

FIG. 75



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

ceFATPa coding only DNA

```

      10      20      30      40
      |      |      |      |
ATGAAGCTGGAGGAGCTTGTGACAGTTATGCTTCTCACAG 40
TGGCTGTCATTGCTCAGAATCTTCCGATTGGAGTAATATT 80
GGCTGGAGTTCTTATTTTATACATCACAGTGGTTCATGGA 120
GATTTCAATTTATAGAAGTTATCTTACGTTGAATAGGGATT 160
TAACAGGATTGGCTCTAATTATTGAAGTCAAAATCGACCT 200
      210      220      230      240
      |      |      |      |
ATGGTGGAGGTTGCATCAGAATAAAGGAATCCATGAACTG 240
TTTTTGGATATTGTGAAAAAGAATCCAAATAAGCCGGCGA 280
TGATTGACATCGAGACGAATACAACAGAAACATACGCAGA 320
GTTCAATGCACATTGTAATAGATATGCCAATTATTTCCAG 360
GGTCTTGGCTATCGATCCGGAGACGTTGTCGCCTTGTACA 400
      410      420      430      440
      |      |      |      |
TGGAGAACTCGGTCGAGTTTGTGGCCGCGTGGATGGGACT 440
CGCAAAAATCGGAGTTGTAACGGCTTGGATCAACTCGAAT 480
TTGAAAAGAGAGCAACTTGTTCAATTGTATCACTGCGAGCA 520
AGACAAAGGCGATTATCACAAGTGTAACACTTCAGAATAT 560
TATGCTTGATGCTATCGATCAGAAGCTGTTTGATGTTGAG 600
      610      620      630      640
      |      |      |      |
GGAATTGAGGTTTACTCTGTCTGGAGAGCCCAAGAAGAATT 640
CTGGATTCAAGAATCTCAAGAAGAAGTTGGATGCTCAAAT 680
TACTACGGAACCAAAGACCCCTTGACATAGTAGATTTTAAA 720
AGTATTCTTTGCTTCATCTATACAAGTGGTACTACTGGAA 760
TGCCAAAAGCCGCTGTCATGAAGCACTTCAGATATTACTC 800
      810      820      830      840
      |      |      |      |
GATTGCCGTTGGAGCCGCAAAATCATTGGAATCCGCCCT 840
TCTGATCGTATGTACGTCTCGATGCCAATTTATCACACTG 880
CAGCTGGAATTCTTGGAGTTGGGCAAGCTCTGTTGGGTGG 920
ATCATCGTGTGTCATTAGAAAAAAATTCTCGGCTAGCAAC 960
TTTTGGAGGGGATTGTGTAAAGTATGATTGTACAGTTTCAC 1000
      1010      1020      1030      1040
      |      |      |      |
AATACATTGGAGAGATTTGTCTGGTACTTGTTGGCTCAGCC 1040
AGTTGTGGAAGAGGAATCCAGGCATAGAATGAGATTGTTG 1080
GTTGGAACCGGACTCCGTGCTGAAATCTGGCAACCATTTG 1120
TAGATCGATTCCGTGTCAGAATTGGAGAACCTTTATGGTTC 1160
AACTGAAGGAACCTTCATCTCTCGTGAACATTGACGGACAT 1200

```

FIG. 76A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210	1220	1230	1240
GTCGGAGCTTGCGGATTCTTGCCAATATCCCCATTAACAA 1240			
AGAAAATGCATCCGGTTTCGATTAATTAAGGTTGATGATGT 1280			
CACTGGAGAAGCAATCCGAACCTCCGATGGACTTTGCATT 1320			
GCATGTAATCCAGGAGAGTCTGGAGCAATGGTGTGACGA 1360			
TCAGAAAAATAATCCATTATTGCAATTCGAGGGATATCT 1400			
1410	1420	1430	1440
GAATAAGAAGGAAACGAATAAAAAGATTATCAGAGATGTC 1440			
TTCGCAAAGGGAGATAGTTGCTTTTTGACTGGAGATCTTC 1480			
TTCATTGGGATCGTCTTGGTTATGTATATTTCAAGGATCG 1520			
TACTGGAGATACTTTCCGTTGGAAGGGAGAGAATGTGTCTG 1560			
ACTACTGAAGTCGAGGCAATTCTTCATCCAATTACTGGAT 1600			
1610	1620	1630	1640
TGTCTGATGCAACTGTTTATGGTGTAGAGGTTCTCAAAG 1640			
AGAGGGAAGAGTTGGAATGGCGTCAGTTGTTTCGAGTTGTA 1680			
TCGCATGAGGAAGATGAACTCAATTTGTTTCATAGAGTTG 1720			
GAGCAAGACTTGCCTCTTCGCTTACCAGCTACGCGATTCC 1760			
TCAGTTTATGCGAATTTGTCAGGATGTTGAGAAAACAGGT 1800			
1810	1820	1830	1840
ACATTCAAACCTTGTGAAGACGAATCTACAACGATTAGGTA 1840			
TCATGGATGCTCCTTCAGATTCAATTTACATCTACAATTC 1880			
TGAAAATCGCAATTTTGTGCCGTTTCGACAATGATTTGAGG 1920			
TGCAAGGTCTCACTGGGAAGTTATCCATTTTAA 1953			

FIG. 76B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

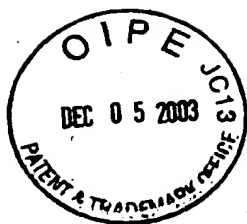
ceFATPa coding only protein

```

      10      20      30      40
      |-----|
MKLEELVTVMLLTVAVIAQNLP IGVILAGVL ILYITVVHG 40
DFIYRSYLT LNRDLTGLAL IIEVKIDLWRLHONKGIHEL 80
FLDIVKKNPNKPAMIDIETNTTET YAEFNAHCNRYANYFQ 120
GLGYRSGDVVALYMENSVEFVAAWMGLAKIGVVTAWINSN 160
LKREQLVHCITASKTKAIITSVT LQNI MLDAIDQKLF DVE 200
      210      220      230      240
      |-----|
GIEVYSVGEPKKNSGFKNLKKK LDAQITTEPKTLDIVDFK 240
SILCFIYTS GTTGMPKAAVMKHFRYY SIAVGAAKSFGIRP 280
SDRMVVSMP IYHTAAGILGVGQALLGGSSCVIRKKFSASN 320
FWRDCVKYDCTVSQYIGEICRYLLAQP VVEEESRHRMRL 360
VGNGLRAEI WQPFVDRFRVRIGELYGSTEGTSSLVNIDGH 400
      410      420      430      440
      |-----|
VGACGFLPISPLTKKMHPVRLIKVDDVTGEAIRTSDGLCI 440
ACNPGESGAMVSTIRKNNPLLOFEGYLNKKETNKKIIRDV 480
FAKGDS CFLTGDLLHWDRLGYVYFKDRTGD TFRWKGENVS 520
TTEVEAILHPITGLSDATVYGVEVPQREGRVGMASVVRVV 560
SHEEDETQFVHRVGARLASSLT SYAIPQFMRICQDVEK TG 600
      610      620      630      640
      |-----|
TFKLVKTNLQRLGIMDAPSDSIYIYNSENRN FVPFDNDLR 640
CKVSLGSYPF 650

```

FIG. 77



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

ceFATPb coding only DNA

```

      10      20      30      40
+-----+
ATGAGGGAAATGCCGGACAGTCCCAAGTTTGC GTTAGTCA 40
CGTTTGTGTGTATGCAGTGGTTTTGTACAATGTCAACAG 80
CGTTTTCTGGAAATTTGTATTCATCGGATATGTTGTATTT 120
AGGCTGCTTCGCACTGATTTTGAAGAAGAGCACTTGCCA 160
CGTTACCTAGAGATTTTGC GGGACTGAAGCTCTTAATATC 200

      210      220      230      240
+-----+
GGTTAAGTCGACAATTCGTGGCTTGTTCAAGAAAGATCGC 240
CCAATTCATGAAATCTTTTTGAATCAGGTGAAACAGCATC 280
CAAACAAAGTGGCGATTATTGAAATTGAAAGTGGTAGGCA 320
GTTGACGTATCAAGAATTGAATGCGTTAGCTAATCAGTAT 360
GCTAACCTTTACGTGAGTGAAGGTTACAAAATGGGCGACG 400

      410      420      430      440
+-----+
TTGTCGCTTTGTTTATGGAAAATAGCATCGACTTCTTTGC 440
AATTTGGCTGGGACTTTCCAAGATTGGAGTCGTGTCGGCG 480
TTCATCAACTCAAACCTGAAGTTGGAGCCATTGGCACATT 520
CGATTAATGTTTCGAAGTGCAAATCATGCATTACCAATAT 560
CAATCTGTTGCCGATGTTCAAAGCCGCTCGTGAAAAGAAT 600

      610      620      630      640
+-----+
CTGATCAGTGACGAGATCCACGTGTTTCTGGCTGGAAGTC 640
AGGTTGATGGACGTCATAGAAGTCTTCAGCAAGATCTCCA 680
TCTTTTCTCTGAGGATGAACCTCCAGTTATAGACGGACTC 720
AATTTTAGAAGCGTTCTGTGTTATATTTACACTTCCGGTA 760
CTACCGGAAATCCAAAGCCAGCCGTCATTAAACACTTCCG 800

      810      820      830      840
+-----+
T TACTTCTGGATTGCGATGGGAGCAGGAAAAGCATTGGA 840
ATTAATAAGTCAGACGTTGTGTACATTACGATGCCAATGT 880
ATCACTCTGCCGCCGGTATCATGGGTATTGGATCATTAAT 920
TGCATTGCGGGTCGACCGCTGTTATTAGGAAAAAGTTTTCG 960
GCAAGCAACTTCTGAAAGATTGCGTCAAGTACAACGTCA 1000

      1010      1020      1030      1040
+-----+
CAGCGACACAGTACATTGGAGAAATCTGCAGGTATCTTCT 1040
GGCAGCGAATCCATGTCTGAAGAGAAACAACACAACGTG 1080
CGATTGATGTGGGGAAATGGTTTGAGAGGACAAATTTGGA 1120
AAGAGTTTGTAGGAAGATTTGGAATTAAGAAAATTGGAGA 1160
GTTGTACGGCTCAACAGAAGGAACTCCAATATTGTTAAC 1200

```

FIG. 78A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210	1220	1230	1240
GTGGATAACCATGTTGGAGCTTGTGGATTTCATGCCAATTT 1240			
ATCCCCATATTGGATCCCTCTACCCAGTTTCGACTTATTAA 1280			
GGTTGATAGAGCCACTGGAGAGCTTGAACGTGATAAGAAC 1320			
GGACTCTGTGTGCCGTGTGTGCCTGGTGAAACTGGGGAAA 1360			
TGGTTGGCGTTATCAAGGAGAAAGATATTCTTCTAAAGTT 1400			
1410	1420	1430	1440
CGAAGGATATGTCAGCGAAGGGGATACTGCAAAGAAAATC 1440			
TACAGAGATGTGTTCAAGCATGGAGATAAGGTGTTTGCAA 1480			
GTGGAGATATTCTTCATTGGGATGATCTTGGATACTTGTA 1520			
CTTTGTGGACCGTTGTGGAGACACTTTCCGTTGGAAAGGG 1560			
GAGAACGTGTCAACTACTGAAGTTGAGGGAATTCTTCAGC 1600			
1610	1620	1630	1640
CTGTGATGGATGTGGAAGATGCAACTGTTTATGGAGTCAC 1640			
TGTCGGTAAATGGAGGGGCGTGCCGGAATGGCTGGTATT 1680			
GTCGTCAAGGATGGAACGGATGTTGAGAAATTCATCGCCG 1720			
ATATTACTTCTCGACTGACCGAAAATCTGGCGTCTTACGC 1760			
AATCCCTGTTTTTCATTTCGGCTGTGCAAGGAAGTTGATCGA 1800			
1810	1820	1830	1840
ACCGGAACCTTCAAACCTCAAGAAGACTGATCTTCAAAAAC 1840			
AAGGTTACGACCTGGTTGCTTGTAAGGAGACCCCAATTTA 1880			
CTACTGGTCAGCTGCAGAAAAATCCTACAAACCACTGACT 1920			
GACAAAATGCAACAGGATATTGACACTGGTGTTTATGATC 1960			
GCATTTAA 1968			

FIG. 78B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

ceFATPb coding only protein

```

      10      20      30      40
MREMPDSPKFALVTFVYAVVLYNVNSVFWKFVFIGYVVF 40
RLLRTDFGRRALATLPRDFAGLKLLISVKSTIRGLFKKDR 80
PIHEIFLNQVKQHPNKVAIIIEISGRQLTYQELNALANQY 120
ANLYVSEGYKMGDVVALFMENSIDFFAIWLGLSKIGVVSA 160
FINSNLKLEPLAHSINVSCKSCITNINLLPMFKAAREKN 200
      210      220      230      240
LISDEIHVFLAGTQVDGRHRSLOQDLHLFSEDEPPVIDGL 240
NFRSVLCYIYTSGTTGNPKPAVIKHFYFWIAMGAGKAFG 280
INKSDVYITMPMYHSAAGIMGIGSLIAFGSTAVIRKKFS 320
ASNFWKDCVKYNVTATQYIGEICRYLLAANPCPEEKQHN 360
RLMWGNGLRGQIWKEFVGRFGIKKIGELYGSTEGNSNIVN 400
      410      420      430      440
VDNHVGACGFMPYIPHIGSLYPVRLIKVDRATGELERDKN 440
GLCVPCVPGETGEMVGVIKEKDILLKFEGYVSEGDTAKKI 480
YRDVFKHGDVKVFASGDILHWDDLGYLYFVDRCGDTFRWKG 520
ENVSTTEVEGILQPVMDVEDATVYGVTVGKMEGRAGMAGI 560
VVKDGTDEKFIADITSRLTENLASAIPVFIRLCKEVDR 600
      610      620      630      640
TGTFKLKKTDLQKGYDLVACKGDPIYYWSAAEKSYKPLT 640
DKMQQIDTGVYDRI 655

```

FIG. 79



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

chFATP coding only DNA

```

      10      20      30      40
      |-----|
ATGGCGTGATGCATCAGGCTCAGCTATACAATGATCTAG 40
AGGAATTGCTAACTGGTCCATCAGTACCCATCGTTGCTGG 80
AGCTGCTGGAGCTGCAGCTCTCACTGCCTACATTAACGCC 120
AAATACCACATAGCCCATGATCTCAAGACCCTCGGTGGTG 160
GATTGACACAATCGTCCGAAGCGATTGATTTCATAAACCG 200
      210      220      230      240
      |-----|
CCGCGTCGCACAAAAGCGCGTCCTCACGCACCACATCTTC 240
CAGGAGCAGGTCCAAAAACAATCAAATCATCCCTTTCTTA 280
TCTTTGAGGGCAAGACATGGTCTTACAAGGAGTTCTCTGA 320
GGCATACACGAGGGTCGCGAACTGGCTGATTGATGAGCTG 360
GACGTACAAGTAGGGGAGATGGTCGCAATTGATGGCGGAA 400
      410      420      430      440
      |-----|
ATAGTGCAGAGCACCTGATGCTTTGGCTTGCACTTGATGC 440
AATCGGTGCGGCTACGAGTTTTTTGAACTGGAACCTGACA 480
GGGGCAGGGTTAATTCATTGCATAAAGCTATGCGAATGTC 520
GATTCGTTATCGCAGACATCGATATTAAAGCGAACATTGA 560
ACCGTGCCGTGGCGAACTGGAGGAGACGGGCATCAACATT 600
      610      620      630      640
      |-----|
CACTACTATGACCCATCCTTCATCTCATCGCTACCGAATA 640
ACACGCCAATTCCCGACAGCCGCACTGAGAACATTGAATT 680
AGATTACGTACGAGGACTGATATACACATCTGGAACCACT 720
GGTCTACCTAAAGGCGTGTTTATAAGCACTGGCCGCGAGC 760
TTAGGACTGACTGGTCGATTTCAAAGTATCTAAATCTCAA 800
      810      820      830      840
      |-----|
GCCCACGGATCGAATGTATACATGTATGCCGCTCTACCAT 840
GCCGCTGCACACAGCCTCTGTACAGCATCAGTTATTCATG 880
GTGGAGGTACCGTGGTATTGAGCAGGAAATCTCACACAA 920
GAAGTTCTGGCCTGAAGTTGTGGCTTCGGAAGCAAATATC 960
ATTCAGTACGTTGGTGAATTAGGTCGATATCTCCTGAATG 1000
      1010      1020      1030      1040
      |-----|
GTCCAAAGAGTCCTTACGACAGGGCCCATAAAGTCCAGAT 1040
GGCGTGGGGCAATGGCATGCGTCCAGACGTGTGGGAAGCG 1080
TTTCGTGAACGCTTCAACATACCAATTATTCATGAGCTCT 1120
ATGCCGCAACCGATGGGCTCGGGTCAATGACCAATCGTAA 1160
CGCGGGGCCCTTTTACAGCAAACGTGATTGCGCTGCGAGGG 1200

```

FIG. 80A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210	1220	1230	1240
CTGATCTGGCACTGGAAATTTTCGAAATCAGGAAGTGCTGG 1240			
TCAAGATGGATCTCGATACTGATGAGATCATGAGAGATCG 1280			
CAATGGGTTTTGCGATACGATGCGCTGTCAATGAACCTGGA 1320			
CAGATGCTTTTTTCGGCTGACACCCGAAACTCTGGCTGGTG 1360			
CACCAAGCTACTACAACAACGAAACGGCCACACAGAGCAG 1400			
1410	1420	1430	1440
GCGGATTACAGATGTGTTTCAAAGGGTGACCTGTGGTTC 1440			
AAGTCCGGTGACATGCTACGGCAAGACGCCGAAGGCCGCG 1480			
TCTACTTTGTTCGATCGACTAGGCGATACGTTCCGCTGGAA 1520			
ATCCGAAAACGTTTCTACCAATGAAGTCGCGGACGTGATG 1560			
GGCACATTTCTCAGATTGCTGAAACGAATGTATACGGTG 1600			
1610	1620	1630	1640
TCCTTGTGCCGGGTAACGATGGTTCGAGTGCGCAGCCTCAA 1640			
TTGTCATGGCAGACGGCGTGACAGAGTCGACATTCGCTTC 1680			
GCTGCCCTTGCAAAGCACGCCCGAGATCGGTTACCGGGTT 1720			
ATGCTGTACCACTGTTTCTGAGGGTAACTCCAGCACTTGA 1760			
ATATACGGGCACATTAAAGATTCAGAAAGGACGCCTCAAG 1800			
1810	1820	1830	1840
CAGGAAGGTATAGACCCAGATAAGATTTCCGGCGAAGATA 1840			
AGTTATACTGGCTGCCGCTGGTAGCGATATATTTACC 1880			
ATTTGGAAAGATGGAGTGGCAGGGAATTGTAGATAAGCGT 1920			
ATACGGCTGTGA 1932			

FIG. 80B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

chFATP coding only protein

```

      10      20      30      40
+-----+
MACMHQAQLYNDLEELLTGPSVP IVAGAAGAAAALTAYINA 40
KYHIAHDLKTLGGGLTOSSEAI DFINRRVAQKRVLTHHIF 80
QEQVQKQSNHPFLIFEGKTWSYKEFSEAYTRVANWLIDEL 120
DVQVGEMVAIDGGNSAEHMLWLALDAIGAATSFLNWNLT. 160
GAGLIHC I KLC ECRFVIADID I KANIEPCRGELEETGINI 200
      210      220      230      240
+-----+
HYYDPSF I S S L P N N T P I P D S R T E N I E L D S V R G L I Y T S G T T 240
GLPKGVF I S T G R E L R T D W S I S K Y L N L K P T O R M Y T C M P L Y H 280
AAHSLCTASVIHGGGT V V L S R K F S H K K F W P E V V A S E A N I 320
IQYVGELGRYLLNGPKSPYDRAHKVQMAWGNGMRPDVWEA 360
FRERFNIP I I H E L Y A A T D G L G S M T N R N A G P F T A N C I A L R G 400
      410      420      430      440
+-----+
LIWHWKFRNQEV LVKMDLDTDEIMRDRNGFAIRCAVNEPG 440
QMLFRLTPETLAGAPSYNNETATQSRRTDVFQKGDLWF 480
KSGDMLRODAEGRVYFVDRLGDTFRWKSENVSTNEVADVM 520
GTFPQIAETNVYGVLPVPGNDGRVRS LNCHGRRRDRVDIRF 560
AALAKHARDRLPGYAVPLFLRVTPALEYTGTLKIQKGRLK 600
      610      620      630      640
+-----+
QEGIDPDKISGEDKLYWLPPGSDIYLPFGKMEWQGIVDKR 640
IRL 643
```

FIG. 81

aspergillus partial.DNA



```

      10      20      30      40
CTTTACCATTCATCAGCTTCATTCTGCATTTTCTAGCTTGA 40
CGGCAGCCGGGTCTACGCTGATCATCGGCCGCAAGTTCTC 80
CGCGAGAAACTTCATAAAGGAAGCGCGGAGAACGACGCC 120
ACGGTCATCCAGTACGTGGGTGAGACCTTGCGATATCTGC 160
TCGCCACCCCCGGTGAAACCGATCCAGTTACTGGCGAAGA 200
      210      220      230      240
CCTGGACAAAAAGCACAATATTCGAGCAGTATACGGCAAC 240
GGGCTACGGCCGGATATCTGGAACCGCTTCAAGGAGCGCT 280
TCAACGTGCCGACGGTTGCCGAATTTTATGCTGCAACCGA 320
GAGCCCAGGCGGAACATGGAACATTCAACAAATGACTTC 360
ACTGCCGGAGCCATTGGGCACACTGGCGTGCTTAGTGGAT 400
      410      420      430      440
GGCTTCTTGGACGCGGCCTTACTATTGTGCGAGGTGGACCA 440
GGAATCACAGGAACCATGGCGCGATCCCCAAACCGGGTTC 480
TGCAAGCCGGTCCCGCGAGGCGAAGCAGGCGAGCTCCTGT 520
ATGCCATTGATCCGGCCGACCCGGGCGAGACCTTCCAGGG 560
CTACTACCGCAACTCCTTTAGAGCACACTGGCGGCCG 597
```

FIG. 82



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

aspergillus partial protein

10 20 30 40
LYHSSASFCIFSLTAAGSTLIIGRKFSARNFIKEAREND 40
TVIQYYGETLRYLLATPGETDPVTGEDLDKKNIRAVYGN 80
GLRPDIWNRKERNVPTVAEFYAATESPGGTWNYSTNDF 120
TAGAIGHTGVLSGWLLGRGLTIVEVDQESQEPWRDPQTGF 160
CKPVPRGEAGELLYAIDPADPGETFQGYRNSFRAHWRP 199

FIG. 83



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

mgFATP partial DNA

```

      10      20      30      40
      |-----|
GCAAAGGCCGACGCGTGGCTGCGGACGGGTAACGTGATCA 40
GGGCGGACAACGAAGGGCGACTCTTCTTCCACGACCGGAT 80
CGGAGACACGTTCCGATGGAAGGGAGAGACNGTCAGCACA 120
CAAGAGGTCAGTTTGGTGCTCGGACGACACGACTCAATCA 160
AGGAGGCCAACGTGTACGGCGTGACGGTGCCGAACCACGA 200
      210      220      230      240
      |-----|
CGGGCGGGCCGGCTGCGCTGCGCTCACGCTATCAGACGCT 240
CTGGCGACTGAAAAGAAGCTGGGCGATGAGCTGCTAAAGG 280
GATTGGCTACTCACTCGTCGACTTCGCTTCCCAAGTTTGC 320
GGTGCCGCAGTTCCTACGGGTGGTGCGCGGCGAGATGCAG 360
TCAACGGGCACCAACAAGCAACAGAAGCACGACCTGAGGG 400
      410      420      430      440
      |-----|
TGCAGGGTGTAGAGCCGGGCAAGGTGGGCGTAGACGAGGT 440
GTACTGGTTGCGGGGAGGGACATATGTACCATTGGAACA 480
GAGGATTGGGATGGGTTGAAGAAGGGTCTTGTGAAGTTGT 520
GA 522

```

FIG. 84

mgFATP partial protein

```

      10      20      30      40
      |-----|
AKADAWLRTGNVIRADNEGRLFFHDRIGDTFRWKGETVST 40
QEVSLVLGRHDSIKEANVYGVTVPNHDGRAGCAALTLSDA 80
LATEKKLGOELLKGLATHSSTSLPKFAVPQFLRVVRGEMQ 120
STGTNKQOKHDLRVQGVPEPGKVGVDVYWLRRGGTYVPFGT 160
EDWDGLKKGLVKL 173

```

FIG. 85



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

scFATP coding only DNA

```

      10      20      30      40
+-----+
ATGTCTCCCATACAGGTTGTTGTCTTTGCCTTGTC AAGGA 40
TTTTCTGCTATTATTTCAGACTTATCAAGCTAATTATAAC 80
CCCTATCCAGAAATCACTGGGTTATCTATTTGGTAATTAT 120
TTTGATGAATTAGACCGTAAATATAGATACAAGGAGGATT 160
GGTATATTATTCCTTACTTTTTGAAAAGCGTGTTTTGTTA 200

      210      220      230      240
+-----+
TATCATTGATGTGAGAAGACATAGGTTTCAAAACTGGTAC 240
TTATTTATTA AACAGGTCCAACAAAATGGTGACCATT TAG 280
CGATTAGTTACACCCGTCCCATGGCCGAAAAGGGAGAATT 320
TCAACTCGAAACCTTTACGTATATTGAAACTTATAACATA 360
GTGTTGAGATTGTCTCATATTTTGCATTTTGATTATAACG 400

      410      420      430      440
+-----+
TTCAGGCCGGTGACTACGTGGCAATCGATTGTACTAATAA 440
ACCTCTTTTTCGTATTTTTATGGCTTTCTTTGTGGAACATT 480
GGGGCTATTCCAGCTTTTTTAAACTATAATACTAAAGGCA 520
CTCCGCTGGTTCACTCCCTAAAGATTTCCAATATTACGCA 560
GGTATTTATTGACCCTGATGCCAGTAATCCGATCAGAGAA 600

      610      620      630      640
+-----+
TCGGAAGAAGAAATCAAAAACGCACTTCCTGATGTTAAAT 640
TAAACTATCTTGAAGAACAAGACTTAATGCATGAACTTTT 680
AAATTCGCAATCACCGGAATTCTTACAACAAGACAACGTT 720
AGGACACCACTAGGCTTGACCGATTTTAAACCTCTATGT 760
TAATTTATACATCTGGAACCACTGGTTTGCCTAAATCCGC 800

      810      820      830      840
+-----+
TATTATGTCTTGGAGAAAATCCTCCGTAGGTTGTCAAGTT 840
TTTGGTCATGTTTTACATATGACTAATGAAAGCACTGTGT 880
TCACAGCCATGCCATTGTTCCATTCAACTGCTGCCTTATT 920
AGGTGCGTGCGCCATTCTATCTCACGGTGGTTGCCTTGCG 960
TTATCGCATAAATTTTCTGCCAGTACATTTTGGAAGCAAG 1000

     1010     1020     1030     1040
+-----+
TTTATTTAACAGGAGCCACGCACATCCAATATGTCGGAGA 1040
AGTCTGTAGATACCTGTTACATACGCCAATTTCTAAGTAT 1080
GAAAAGATGCATAAGGTGAAGGTTGCTTATGGTAACGGGC 1120
TGAGACCTGACATCTGGCAGGACTTCAGGAAGAGGTTCAA 1160
CATAGAAGTTATTGGTGAATTCTATGCCGCAACTGAAGCT 1200

```

FIG. 86A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210 1220 1230 1240
CCTTTTGCTACAACCTACCTTCCAGAAAGGTGACTTTGGAA 1240
TTGGCGCATGTAGGAACCTATGGTACTATAATTCAATGGTT 1280
TTTGTCATTCCAACAAACATTGGTAAGGATGGACCCAAAT 1320
GACGATTCCGTTATATATAGAAATTCCAAGGGTTTCTGCG 1360
AAGTGGCCCCCTGTTGGCGAACCAGGAGAAATGTTAATGAG 1400
1410 1420 1430 1440
AATCTTTTTCCCTAAAAAACCAGAAACATCTTTTCAAGGT 1440
TATCTTGGTAATGCCAAGGAAACAAAGTCCAAAGTTGTGA 1480
GGGATGTCTTCAGACGTGGCGATGCTTGGTATAGATGTGG 1520
AGATTTATTAAAAGCGGACGAATATGGATTATGGTATTTT 1560
CTTGATAGAATGGGTGATACTTTTCAGATGGAAATCTGAAA 1600
1610 1620 1630 1640
ATGTTTCCACTACTGAAGTAGAAGATCAGTTGACGGCCAG 1640
TAACAAAGAACAATATGCACAAGTTCTAGTTGTTGGTATT 1680
AAAGTACCTAAATATGAAGGTAGAGCTGGTTTTGCAGTTA 1720
TTAAACTAACTGACAACCTCTCTTGACATCACTGCAAAGAC 1760
CAAATTATTAAATGATTCCTTGAGCCGGTTAAATCTACCG 1800
1810 1820 1830 1840
TCTTATGCTATGCCCCCTATTTGTTAAATTTGTTGATGAAA 1840
TTAAAATGACAGATAACCTCATAAAATTTTGA 1872

FIG. 86B



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

scFATP coding only protein

```

      10      20      30      40
      |-----|
MSPIQVVVFALSRIFLLLFRLIKLIITPIQKSLGYLFGNY 40
FDELD RKYRYKEDWYIIPYFLKSVFCYIIDVRRHRFQNWY 80
LFIKQVQNGDHLAISYTRPMAEKGEFQLETFTYIETYN I 120
VLRLSHILHFDYNVOAGDYVAIDCTNKPLFVFLWLSLWNI 160
GAIPAFLNYNTKGTPLVHSLKISNITQVFIDPDASNP IRE 200

      210      220      230      240
      |-----|
SEEEIKNALPDVKLNYLEEQDLMHELLNSQSPEFLOQDNV 240
RTPGLGLTDFKPSMLIYTSGTTGLPKSAIMSWRKSSVGCQV 280
FGHVLHMTNESTVFTAMPLFHSTAALLGACAILSHGGCLA 320
LSHKFSASTFWKQVYLTGATHIQYVGEVCRYLLHTPI SKY 360
EKMHKVKVAYGNGLRPDIWODFRKRFNIEVIGEFYAATEA 400

      410      420      430      440
      |-----|
PFATTTFOKGDFGIGACRNYGTIIQWFLSFQQTIVRMDPN 440
DDSVIYRNSKGFCEVAPVGEPEGMLMRIFFPKKPETSFOG 480
YLGNAKETKSKVVROVFRRGDAWYRCGDLKADEYGLWYF 520
LDRMGDTFRWKSENVSTTEVEDQLTASNKEQYAQVLVVG I 560
KVPKYEGRAGFAVIKLTDNSLDITAKTKLLNDSLSRLNLP 600

      610      620      630      640
      |-----|
SYAMPLFVKFVDEIKMTDNLIK F 623

```

FIG. 87



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

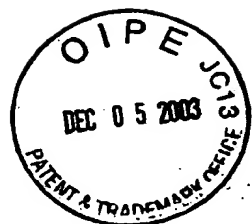
mtFATP coding only DNA

```

      10      20      30      40
+-----+-----+-----+-----+
GTGTCCGATTACTACGGCGGCGCACACACAACGGTCAGGC 40
TGATCGACCTGGCAACTCGGATGCCGCGAGTGTTGGCGGA 80
CACGCCGGTGATTGTGCGTGCGGGCAATGACCGGGCTGCTG 120
GCCCCGGCCGAATTCCAAGGCGTCGATCGGCACGGTGTTCC 160
AGGACCGGGCCGCTCGCTACGGTGACCGAGTCTTCCTGAA 200
      210      220      230      240
+-----+-----+-----+-----+
ATTCGGCGATCAGCAGCTGACCTACCGCGACGCTAACGCC 240
ACCGCCAACCGGTACGCCGCGGTGTTGGCCGCCCGCGGCG 280
TCGGCCCCGGCGACGTCGTTGGCATCATGTTGCGTAACTC 320
ACCCAGCACAGTCTTGGCGATGCTGGCCACGGTCAAGTGC 360
GGCGCTATCGCCGGCATGCTCAACTACCACCAGCGCGGCG 400
      410      420      430      440
+-----+-----+-----+-----+
AGGTGTTGGCGCACAGCCTGGGTCTGCTGGACGCGAAGGT 440
ACTGATCGCAGAGTCCGACTTGGTCAGCGCCGTCGCCGAA 480
TGCGGCGCCTCGCGCGGCGGGTAGCGGGCGACGTGCTGA 520
CCGTCGAGGACGTGGAGCGATTGCCACAACGGCGCCCGC 560
CACCAACCCGGCGTCGGCGGTGCAAGCCAAAGAC 600
      610      620      630      640
+-----+-----+-----+-----+
ACCGCGTTCTACATCTTCACCTCGGGCACCACCGGATTTG 640
CCAAGGCCAGTGTCATGACGCATCATCGGTGGCTGCGGGC 680
GCTGGCCGTCTTCGGAGGGATGGGGCTGCGGCTGAAGGGT 720
TCCGACACGCTCTACAGCTGCCTGCCGCTGTACCACAACA 760
ACGCGTTAACGGTCGCGGTGTCGTCGGTGATCAATTCTGG 800
      810      820      830      840
+-----+-----+-----+-----+
GGCGACCCTGGCGCTGGGTAAGTCGTTTTCGGCGTCGCGG 840
TTCTGGGATGAGGTGATTGCCAACCGGGCGACGGCGTTTCG 880
TCTACATCGGCGAAATCTGCCGTTATCTGCTCAACCAGCC 920
GGCCAAGCCGACCGACCGTGCCCAACAGGTGCGGGTGATC 960
TGCGGTAACGGGCTGCGGCCGGAGATCTGGGATGAGTTCA 1000
      1010      1020      1030      1040
+-----+-----+-----+-----+
CCACCCGCTTCGGGGTTCGCGCGGGTGTGCGAGTTCTACGC 1040
CGCCAGCGAAGGCAACTCGGCCCTTATCAACATCTTCAAC 1080
GTGCCAGGACCGCCGGGGTATCGCCGATGCCGCTTGCTT 1120
TTGTGGAATACGACCTGGACACCGGCGATCCGCTGCGGGA 1160
TGCGAGCGGGCGAGTGCGTCGGGTACCCGACGGTGAACCC 1200

```

FIG. 88A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1210 1220 1230 1240
GGCCTGTTGCTTAGCCGGGTCAACCGGCTGCAGCCGTTTCG 1240
ACGGCTACACCGACCCGGTTGCCAGCGAAAAGAAGTTGGT 1280
GCGCAACGCTTTTTTCGAGATGGCGACTGTTGGTTCAACACC 1320
GGTGACGTGATGAGCCCGCAGGGCATGGGCCATGCCGCCT 1360
TCGTGATCGGCTGGGCGACACCTTCCGCTGGAAGGGCGA 1400
1410 1420 1430 1440
GAATGTCGCCACCACTCAGGTCTGAAGCGGCACTGGCCTCC 1440
GACCAGACCGTCGAGGAGTGCACGGTCTACGGCGTCCAGA 1480
TTCCGCGCACCGGCGGGCGCGCCGGAATGGCCGCGATCAC 1520
ACTGCGCGCTGGCGCCGAATTTCGACGGCCAGGCGCTGGCC 1560
CGAACGGTTTACGGTCACTTGCCCCGGCTATGCACTTCCGC 1600
1610 1620 1630 1640
TCTTTGTTTCGGGTAGTGGGGTTCGCTGGCGCACACCACGAC 1640
GTTCAAGAGTCGCAAGGTGGAGTTGCGCAACCAGGCCTAT 1680
GGCGCCGACATCGAGGATCCGCTGTACGTACTGGCCGGCC 1720
CGGACGAAGGATATGTGCCGTACTACGCCGAATACCCTGA 1760
GGAGGTTTCGCTCGGAAGGCGACCGCAGGGCTAG 1794

FIG. 88B

mtFATP coding only protein

10 20 30 40
MSDYYGGAHTTVRLIDLATRMPrVLADTPVIVRGAMTGLL 40
ARPNKASIGTVFQDRAARYGDRVFLKFGDQQLTYRDANA 80
TANRYAAVLAARGVGP GDVVGIMLRNSPSTVLAMLATVKC 120
GAIAGMLNYHQRGEVLAHSLGLLDAKVLIAESDLVSAVAE 160
CGASRGRVAGDVLTVEDVERFATTAPATNPASASAVQAKD 200
210 220 230 240
TAFYIFTSGTTGFPKASVMTHHRWLRALAVFGGMGLRLKG 240
SDTLYSCLPLYHNNALTVAVSSVINSGATLALGKSFSASR 280
FWDEVIANRATAFVYIGEICRYLLNPAKPTDRAHQVRVI 320
CGNGLRPEIWDEFTTRFGVARVCEFYAASEGNSAFINIFN 360
VPRTAGVSPMPLAFVEYDLDOTGDPLRDASGRVRRVPDGE 400
410 420 430 440
GLLLSRVNRLOPFDGYTDPVASEKKLVRNAFRDGDWCFNT 440
GDVMSPOGMGHA AFVDRLGDTFRWKGENVATTQVEAALAS 480
DQTVEECTVYGVQIPRTGGRAGMAAITLRAGAEFDGQALA 520
RTVYGHLPGYALPLFVRVVGSLAHTTTFKSRKVELRNQAY 560
GADIEDPLYVLAGPDEGYVPYYAEYPEEVSLGRRPQG 597

FIG. 89

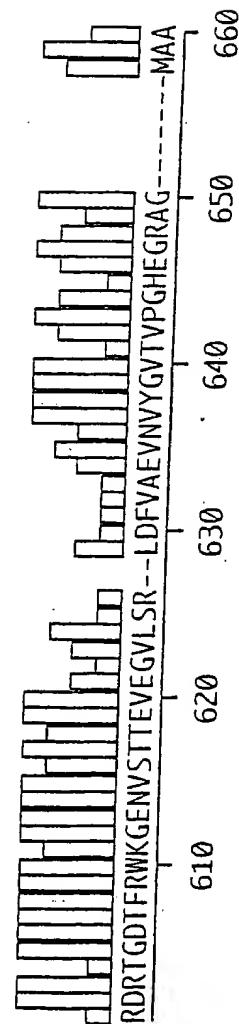
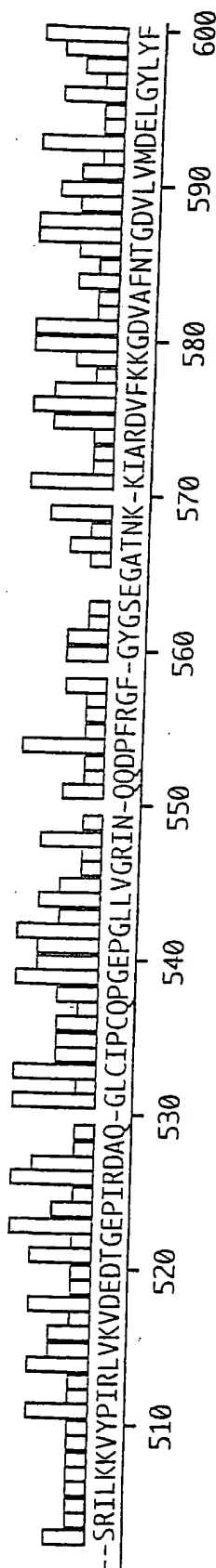
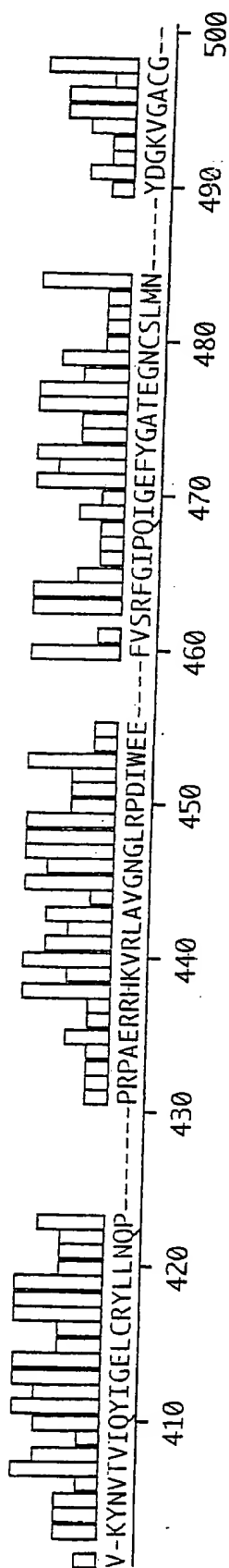
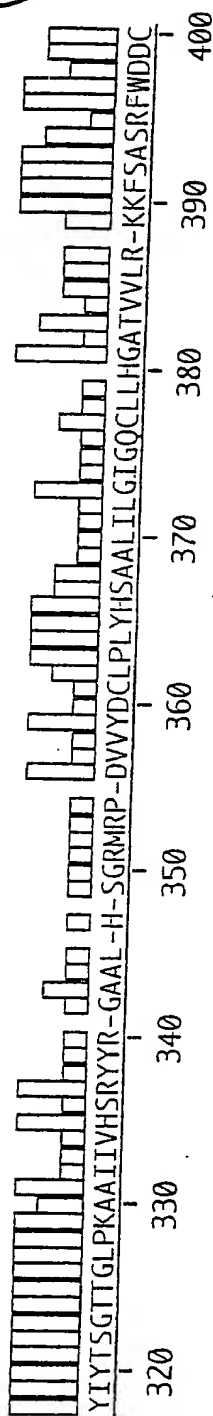


FIG. 90



hsVLACS full length protein
Hydrophilicity Plot-Kyte-Doolittle

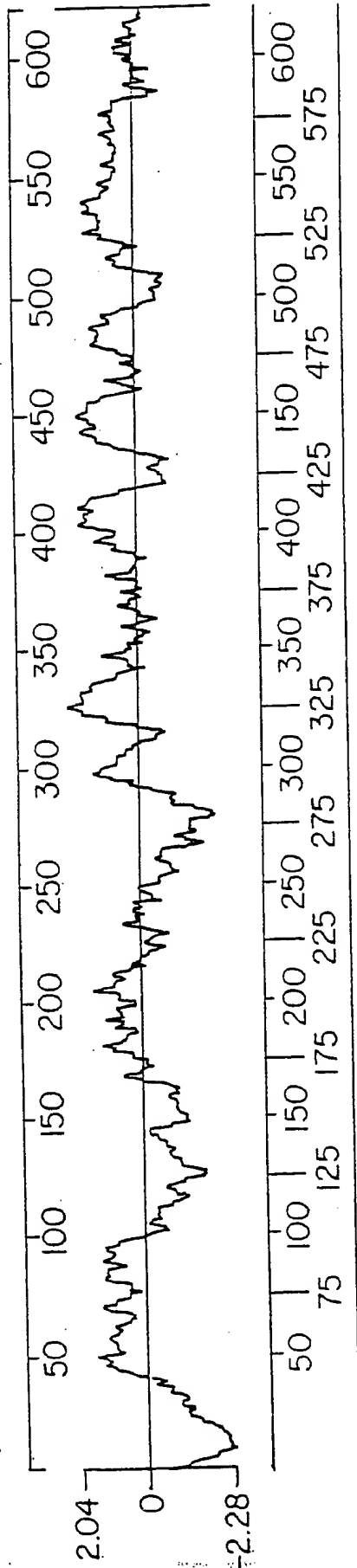


FIG. 91

hsFATP3 partial protein
Hydrophilicity Plot-Kyte-Doolittle

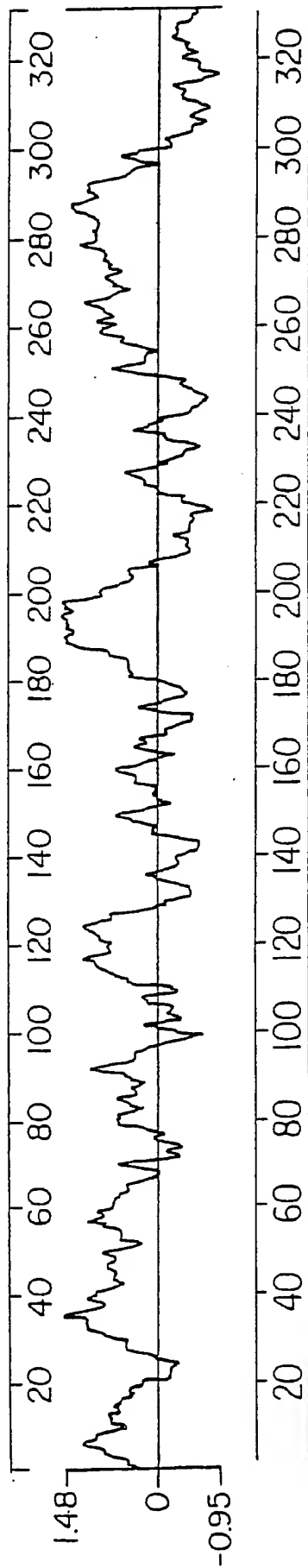


FIG. 92



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

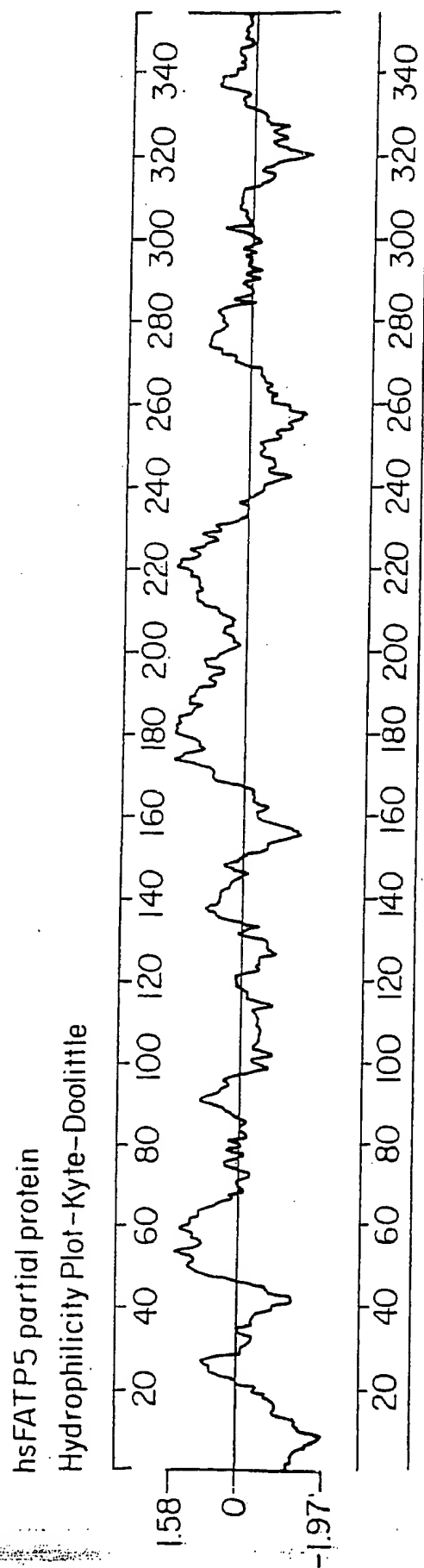
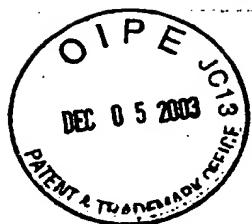


FIG 93



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

hsFATP3

1	cga ccc acg cgt ccg ggg atg ttt gcg agc
1	M F A S
31	ggc tgg aac cag acg gtg ccg ata gag gaa
5	G W N Q T V P I E E
61	gcg ggc tcc atg gct gcc ctc ctg ctg ctg
15	A G S M A A L L L L
91	ccc ctg ctg ctg ttg cta ccg ctg ctg ctg
25	P L L L L L P L L L
121	ctg ctg aag cta cac ctc tgg ccg cag ttg
35	L L K L H L W P Q L
151	cgc tgg ctt ccg gcg gac ttg gcc ttt gcg
45	R W L P A D L A F A
181	gtg cga gct ctg tgc tgc aaa agg gct ctt
55	V R A L C C K R A L
211	cga gct cgc gcc ctg gcc gcg gct gcc gcc
65	R A R A L A A A A A
241	gac ccg gaa ggt ccc gag ggg ggc tgc agc
75	D P E G P E G G C S

FIG. 94A



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

271 ctg gcc tgg cgc ctc gcg gaa ctg gcc cag
85 L A W R L A E L A Q

301 cag cgc gcc gcg cac acc ttt ctc att cac
95 Q R A A H T F L I H

331 ggc tgc cgg cgc ttt agc tac tca gag gcg
105 G S R R F S Y S E A

361 gag cgc gag agt aac agg gct gca cgc gcc
115 E R E S N R A A R A

391 ttc cta cgt gcg cta ggc tgg gac tgg gga
125 F L R A L G W D W G

FIG. 94B

421 ccc gac ggc ggc gac agc ggc gag ggg agc
135 P D G G D S G E G S

451 gct gga gaa ggc gag cgg gca gcg ccg gga
145 A G E G E R A A P G

481 gcc gga gat gca gcg gcc gga agc ggc gcg
155 A G D A A A G S G A

521 gag ttt gcc gga ggg gac ggt gcc gcc aga
165 E F A G G D G A A R

541 ggt gga gga gag ccc gcc gcc cct ctg tca
175 G G G E P A A P L S

571 cct gga gca act gtg gcg ctg ctc ctc ccc
185 P G A T V A L L L P

601 gct ggc cca gag ttt ctg tgg ctc tgg ttc
195 A G P E F L W L W F

FIG. 94C



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

631	ggg ctg gcc aag gcc ggc ctg cgc act gcc
205	G L A K A G L R T A
661	ttt gtg ccc acc gcc ctg cgc cgg ggc ccc
215	F V P T A L R R G P
691	ctg ctg cac tgc ctc cgc agc tgc ggc gcg
225	L L H C L R S C G A
721	cgc gcg ctg gtg ctg gcg cca gag ttt ctg
235	R A L V L A P E F L
751	gag tcc ctg gag ccg gac ctg ccc gcc ctg
245	E S L E P D L P A L
781	aga gcc atg ggg ctc cac ctg tgg gct gca
255	R A M G L H L W A A
811	ggc cca gga acc cac cct gct gga att agc
265	G P G T H P A G I S
841	gat ttg ctg gct gaa gtg tcc gct gaa gtg
275	D L L A E V S A E V

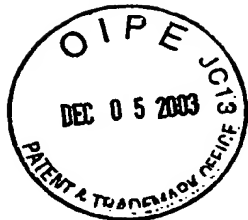
FIG. 94D



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

871	gat	ggg	cca	gtg	cca	gga	tac	ctc	tct	tcc
285	D	G	P	V	P	G	Y	L	S	S
901	ccc	cag	agc	ata	aca	gac	acg	tgc	ctg	tac
295	P	Q	S	I	T	D	T	C	L	Y
931	atc	ttc	acc	tct	ggc	acc	acg	ggc	ctc	ccc
305	I	F	T	S	G	T	T	G	L	P
961	aag	gct	gct	cgg	atc	agt	cat	ctg	aag	atc
315	K	A	A	R	I	S	H	L	K	I
991	ctg	caa	tgc	cag	ggc	ttc	tat	cag	ctg	tgt
325	L	Q	C	Q	G	F	Y	Q	L	C
1021	ggt	gtc	cac	cag	gaa	gat	gtg	atc	tac	ctc
335	G	V	H	Q	E	D	V	I	Y	L

FIG. 94E



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1051	gcc	ctc	cca	ctc	tac	cac	atg	tcc	ggc	tcc
345	A	L	P	L	Y	H	M	S	G	S
1081	ctg	ctg	ggc	atc	gtg	ggc	tgc	atg	ggc	att
355	L	L	G	I	V	G	C	M	G	I
1111	ggg	gcc	aca	gtg	gtg	ctg	aaa	tcc	aag	ttc
365	G	A	T	V	V	L	K	S	K	F
1141	tgc	gct	ggt	cag	ttc	tgg	gaa	gat	tgc	cag
375	S	A	G	Q	F	W	E	D	C	Q
1171	cag	cac	agg	gtg	acg	gtg	ttc	cag	tac	att
385	Q	H	R	V	T	V	F	Q	Y	I
1201	ggg	gag	ctg	tgc	cga	tac	ctt	gtc	aac	cag
395	G	E	L	C	R	Y	L	V	N	Q
1231	ccc	ccg	agc	aag	gca	gaa	cgt	ggc	cat	aag
405	P	P	S	K	A	E	R	G	H	K
1261	gtc	cgg	ctg	gca	gtg	ggc	agc	ggg	ctg	cgc
415	V	R	L	A	V	G	S	G	L	R

FIG. 94F



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1291	cca	gat	acc	tgg	gag	cgt	ttt	gtg	cgg	cgc
425	P	D	T	W	E	R	F	V	R	R
1321	ttc	ggg	ccc	ctg	cag	gtg	ctg	gag	aca	tat
435	F	G	P	L	Q	V	L	E	T	Y
1351	gga	ctg	aca	gag	ggc	aac	gtg	gcc	acc	atc
445	G	L	T	E	G	N	V	A	T	I
1381	aac	tac	aca	gga	cag	cgg	ggc	gct	gtg	ggg
455	N	Y	T	G	Q	R	G	A	V	G
1411	cgt	gct	tcc	tgg	ctt	tac	aag	cat	atc	ttc
465	R	A	S	W	L	Y	K	H	I	F
1441	ccc	ttc	tcc	ttg	att	cgc	tat	gat	gtc	acc
475	P	F	S	L	I	R	Y	D	V	T
1471	aca	gga	gag	cca	att	cgg	gac	ccc	cag	ggg
485	T	G	E	P	I	R	D	P	Q	G
1501	cac	tgt	atg	gcc	aca	tct	cca	ggt	gag	cca
495	H	C	M	A	T	S	P	G	E	P
1531	ggg	ctg	ctg	gtg	gcc	ccg	gta	agc	cag	cag
505	G	L	L	V	A	P	V	S	Q	Q

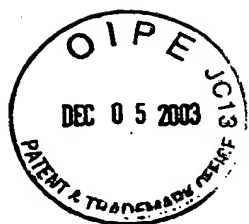
FIG. 94G



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1561	tcc	cca	ttc	ctg	ggc	tat	gct	ggc	ggg	cca
515	S	P	F	L	G	Y	A	G	G	P
1591	gag	ctg	gcc	cag	ggg	aag	ttg	cta	aag	gat
525	E	L	A	Q	G	K	L	L	K	D
1621	gtc	ttc	cgg	cct	ggg	gat	gtt	ttc	ttc	aac
535	V	F	R	P	G	D	V	F	F	N
1651	act	ggg	gac	ctg	ctg	gtc	tgc	gat	gac	caa
545	T	G	D	L	L	V	C	D	D	Q
1681	ggt	ttt	ctc	cgc	ttc	cat	gat	cgt	act	gga
555	G	F	L	R	F	H	D	R	T	G
1711	gac	acc	ttc	agg	tgg	aag	ggg	gag	aat	gtg
565	D	T	F	R	W	K	G	E	N	V
1741	gcc	aca	acc	gag	gtg	gca	gag	gtc	ttc	gag
575	A	T	T	E	V	A	E	V	F	E

FIG. 94H



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1741	gcc	aca	acc	gag	gtg	gca	gag	gtc	ttc	gag
575	A	T	T	E	V	A	E	V	F	E
1771	gcc	cta	gat	ttt	ctt	cag	gag	gtg	aac	gtc
585	A	L	D	F	L	Q	E	V	N	V
1801	tat	gga	gtc	act	gtg	cca	ggg	cat	gaa	ggc
595	Y	G	V	T	V	P	G	H	E	G
1831	agg	gct	gga	atg	gca	gcc	cta	gtt	ctg	cgt
605	R	A	G	M	A	A	L	V	L	R
1861	ccc	ccc	cac	gct	ttg	gac	ctt	atg	cag	ctc
615	P	P	H	A	L	D	L	M	Q	L
1891	tac	acc	cac	gtg	tct	gag	aac	ttg	cca	cct
625	Y	T	H	V	S	E	N	L	P	P
1921	tat	gcc	cgg	ccc	cga	ttc	ctc	agg	ctc	cag
635	Y	A	R	P	R	F	L	R	L	Q

FIG. 94I



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

1951	gag tct ttg gcc acc aca gag acc ttc aaa
645	E S L A T T E T F K
1981	cag cag aaa gtt cgg atg gca aat gag ggc
655	Q Q K V R M A N E G
2011	ttc gac ccc agc acc ctg tct gac cca ctg
665	F D P S T L S D P L
2041	tac gtt ctg gac cag gct gta ggt gcc tac
675	Y V L D Q A V G A Y
2071	ctg ccc ctc aca act gcc cgg tac agc gcc
685	L P L T T A R Y S A
2101	ctc ctg gca gga aac ctt cga atc tga gaa
695	L L A G N L R I *
2131	ctt cca cac ctg agg cac ctg aga gag gaa
2161	ctc tgt

FIG. 94J



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

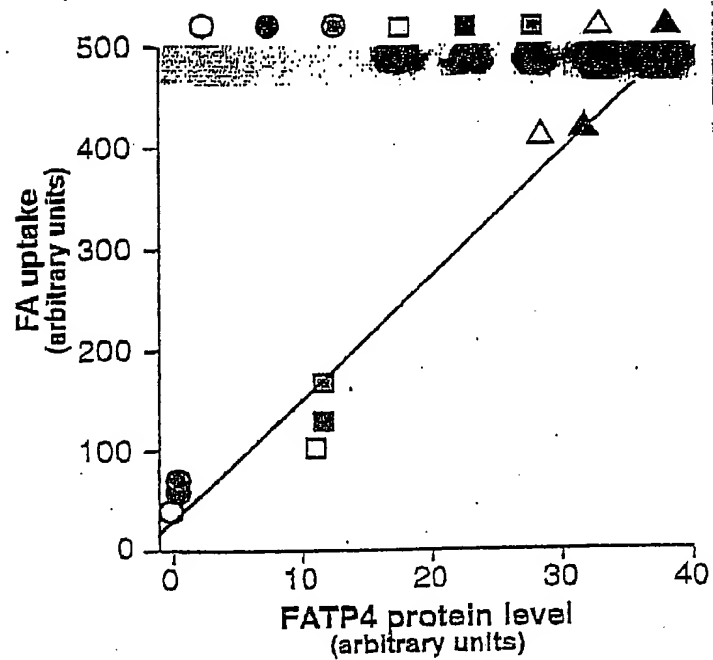


Figure 95



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

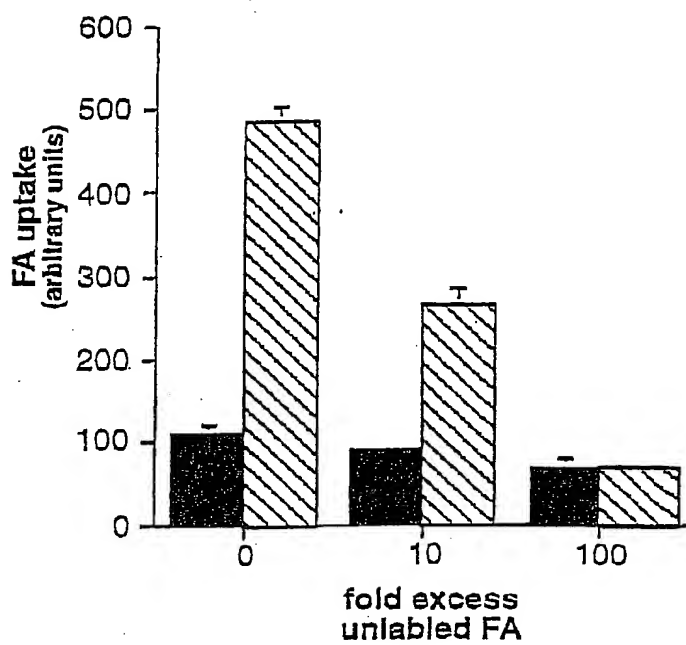


Figure 96



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

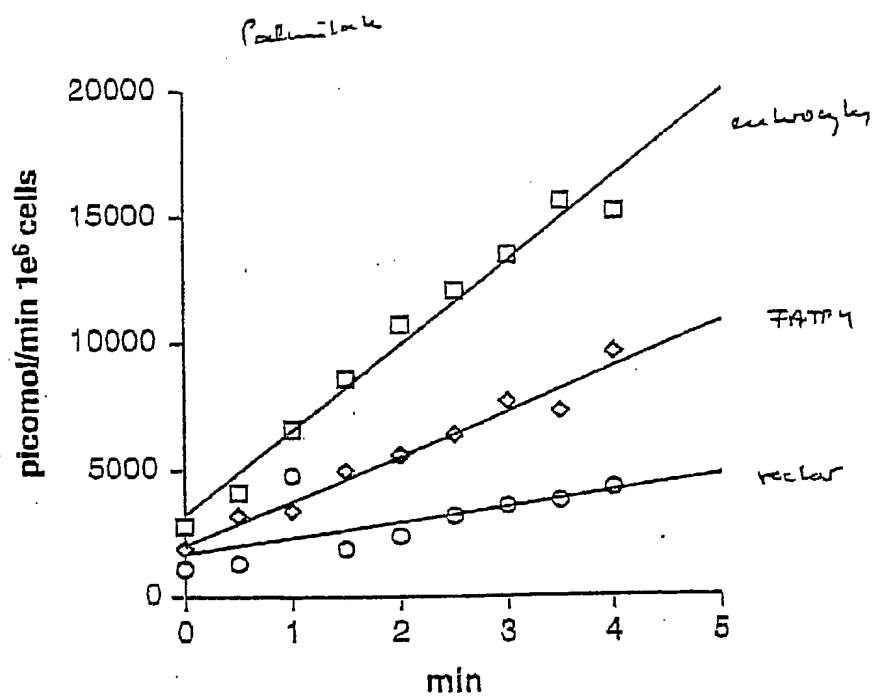


Figure 97



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

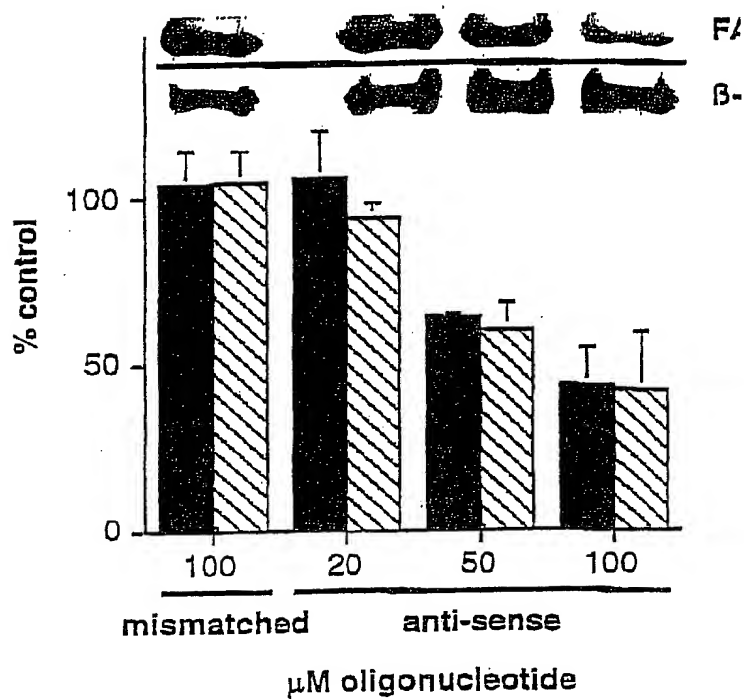


Figure 98



Appl'n No.: 09/405,504
Title: METHODS OF IDENTIFYING...
Inventors: Andreas Stahl, *et al.*
Replacement Sheet

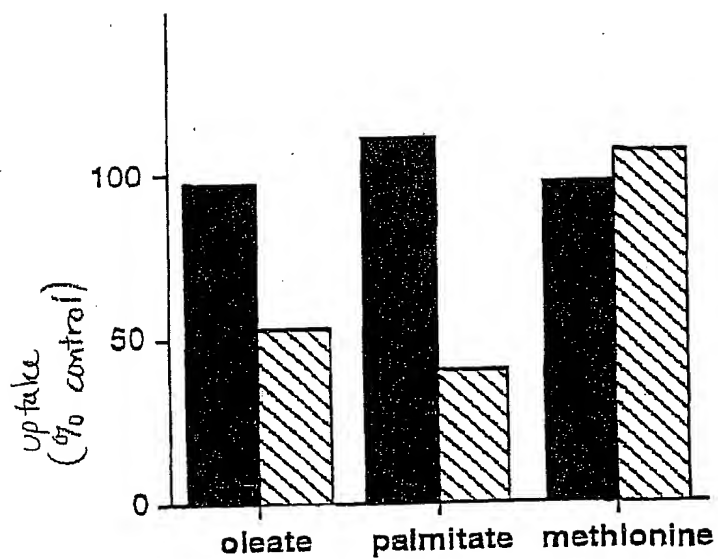


Figure 99